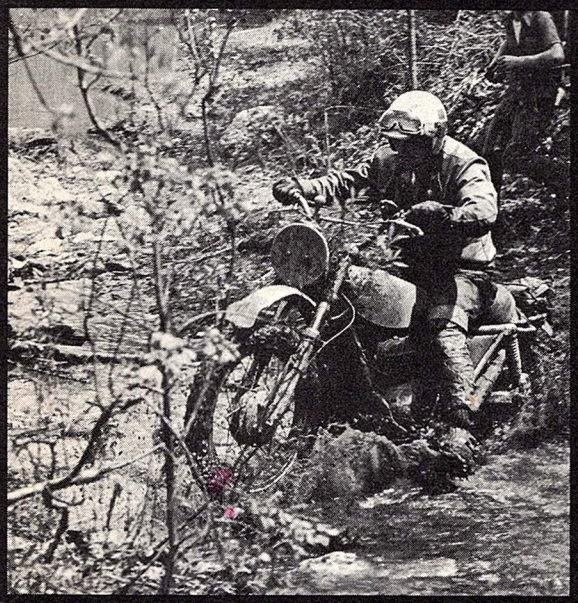
SUZUKI
250 MX
ELSINORE
GREENHORN
Who Goes and Who Don't — The Trask
Two-Day Qualifier

# THREE DAYS OF RAIN, ROCKS, MUD



A new production bike, the 500cc YANKEE twin, entered the United States' most demanding and prestigious Six Days Qualifier — The Berkshire International 3-Day Trials. Riding over rain-drenched, slick, mud-rutted terrain, Dave Eames rode 500 miles, dropping only 15 points for a flat tire, to win a Silver Medal — a remarkable first achievement.

YANKEE

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MODERN CYCLE VOL. 8, NO. 9 SEPTEMBER, 1972

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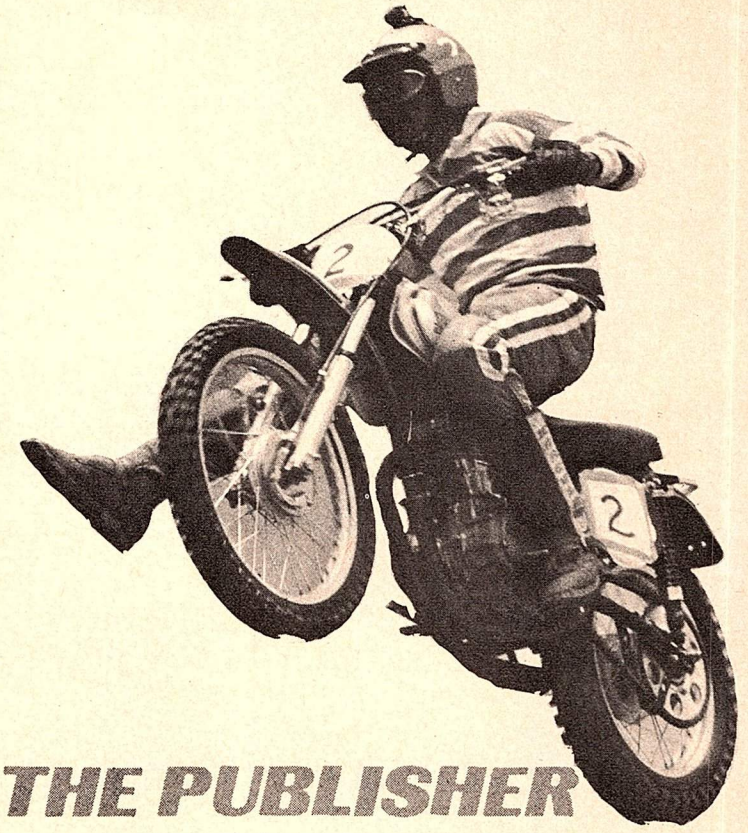


# A BLAST FROM THE PUBLISHER

*CONGRESS SET FOR OCTOBER*

The American Motorcycle Association's 1972 Competition Congress will be held October 9, 10, 11 and 12 at Columbus, Ohio's Imperial House North.

The four-day congress has been scheduled nearly a month earlier than its traditional date in November to provide the AMA staff adequate time to properly prepare and edit the 1973 competition rule books.

Concerned motorcyclists should be aware of this date change so that they may send changes and suggestions to their District Congressmen.

*KESSLER NAMED DIRECTOR*

Roy M. Kessler has been appointed to the post of director of legislative activities for the Motorcycle Industry Council.

Kessler, 52, brings to MIC more than 30 years of progressively responsible experience in management, manpower and equipment development, systems applications and government and congressional relations.

As part of his background, Kessler has managed and administered diverse non-profit organizations; organized and conducted seminars, conferences, exhibits and various training and public relations programs, and has mediated meetings and negotiations with national labor, government and congressional leaders.

*U.S. MOTO CROSS GP LISTED*

The Federation Internationale Motocycliste, the world governing body for the sport of motorcycling, has granted the American Motorcycle Association a 500cc Grand Prix moto cross event for June 24, 1973.

The mid-summer event originally was incorrectly reported as a part of the 1972 calendar. 1972's 500cc Grand Prix will be contested at Carlsbad, California on November 5.

*NEW FACE AT YAMAHA*

Robert D. Healy has been named district manager for Utah,Nevada, and Arizona for Yamaha International Corporation Motorcycle Division, vice president for sales Terry Tiernan announced.

In his new position, Healy will be responsible for dealer service and company liaison throughout the three-state area. He will be headquartered in Orem, Utah.

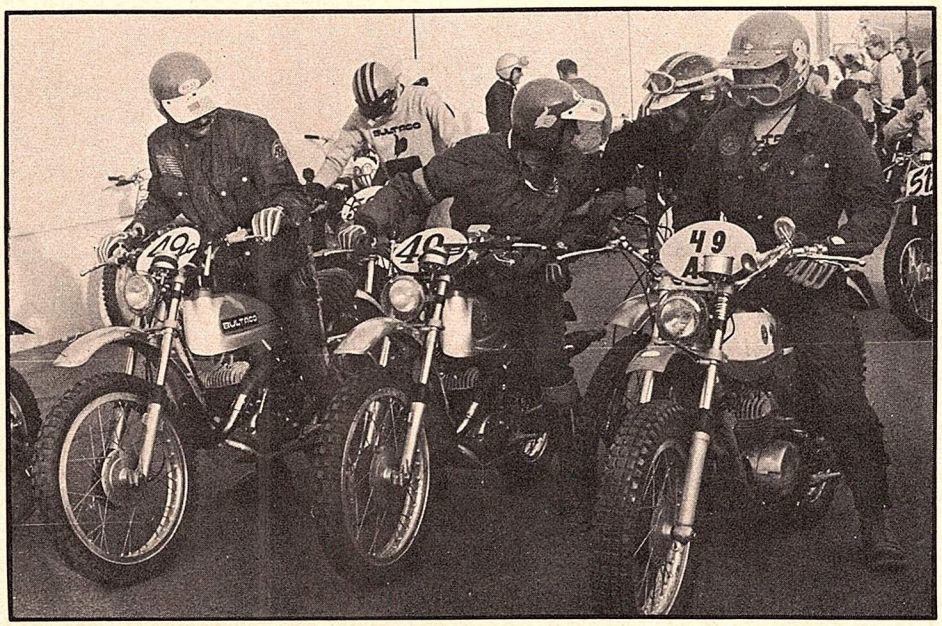
*FALL TRANS-AMA SET*

The American Motorcycle Association's Professional racing department has announced the 1972 fall Trans-AMA Interenational moto cross series schedule. Pursues for the 11-event series will total $126,000 with several thousand additional dollars in contingencies.

| *Date* | *City, State and Site* | *Purse* |
|---|---|---|
| Sept. 24 | Copetown, Ont., Canada Steel City Riders M/C | $ 8,000 |
| Oct. 1 | Linville, Ohio Honda Hills | $10,000 |
| Oct. 8 | St. Louis. Missouri Mid-America Moto Cross | $10,000 |
| Oct. 15 | Gainesville, Georgia Road Atlanta, Inc. | $10,000 |
| Oct. 22 | Orlando, Florida Orlando Sports Stadium | $10,0000 |
| Oct. 29 | Houston, Texas Rio Bravo Motorcycle Park | $12,000 |
| Nov. 5 | Carlsbad, California Carlsbad Raceway | $16,000 |
| Nov. 12 | Phoenix, Arizona Arizona Cycle Park | $10,000 |
| Nov. 19 | Puyallup, Washington Puyallup Raceway | $12,000 |
| Nov. 26 | Livermore, California Carnegie Cycle Park | $12,000 |
| Dec. 3 | Los Angeles, California Saddleback Park | $16,000 |

# THE GREENHORN.

## 500 OF THE TOUGHEST MILES ON EARTH




The Greenhorn National Championship Enduro, May 28/29, 1972: Two days, 500 miles, 6000ft mountains, 100 degree desert heat, 80mph dirt roads, walking-pace, rock-strewn sandwashes.

| | | |
|---|---|---|
| 1st Overall | Bob Steffan | Bultaco |
| 2nd Overall | Dave Ekins | Bultaco |
| 1st Open Expert | Bob Steffan | Bultaco |
| 1st 250cc Expert | Dave Ekins | Bultaco |
| Father & Son Team | Dave and Greg Ekins | Bultaco |

# BULTACO

# THE european RACING GAME

The Scottish Six Days Trial produced the second only triple win in the long history of the event when Ossa Number One Mick Andrews won this year's event which followed wins in 1970 & '71. The record equalled by Andrews was that held by Hugh Viney—350 AJS in the 1947-8-9 years. The "Scottish" dates back to 1909 and, except for the first two years, has always been organized by the Edinburgh & District Motorcycle Club. The winner did not take over the lead until the Thursday when he pulled back an 8 mark deficit on Malcolm Rathmell (the Wednesday leader), and converted this on the Thursday into a 3 mark lead over A. R. Lampkin with Rathmell now 18 marks behind.

The reversal was due to time wasting by several of the leaders who made overlong inspection of the sections to their cost, whereas Andrews, who said he felt that time could be a critical factor, pressed on with no marks lost on time. The first three gave a fair distribution of the spoils to the three Spanish makes with Andrews (Ossa), A. R. Lampkin (Bultaco), and Rob Edwards (Montesa), in that order whilst Montesa took the Manufacturers Team Prize—Edwards, Shepherd and Farley (this being the fourth year running that this team prize has gone to Montesa). Montesa also fielded a team on their new 125 trials bike which will soon be on the market. Also on test is a 350cc version which follows the 325cc Bultaco one of which won the 350cc class in the Scottish in the hands of Spanish rider F. Munoz. Although available to the works Bultaco riders it was the tried and proved 250 that they put their faith in. Before the trial Andrews had guessed the winners marks loss would be around the 45 mark, and, in fact, he won with a near 49 penalty with second and third men on 58 and 60 loss. The winner used a new rear trials tire to big time competitions with an American "Full Bore" 4.20x18 made by the Carlisle Company.

Agostini, beaten by the BSA and Triumph 3's on their home ground, has now had a repeat beating by Finland's Jarno Saarinen on a 350 Yamaha. Agostini made no excuse except that his M.V. three was just not fast enough. The following week M.V. rustled up their new 4 to set matters to right, but in practice this suffered a holed piston, so it was back to the three and another even greater beating by Saarinen and fellow countryman Lansivuori and Pasolini on his works Aermacchi.

With the constant capacity increases in the endeavor to label the product as the world's fastest—and in racing the Formula 750 had to be brought in to cater for such—there were known moves to go to the 1,000cc limit. Kawasaki, in fact, admitted developing a 1,000cc four-cylinder now in response to the U.S. Government concern at such monster power from two-wheelers. The Japanese industry has, it is reported, voluntarily agreed to the present 750cc top limit.

After many years of hard graft, the Grand Prix Riders Association has, under the able guidance of British Sidecar Expert Fred Hanks (whose 3 sons have taken over from father at the top of the passenger racing), made noteworthy progress in recruiting such top solo men as Agostini, Angelo Nieto, and Gilberto Parlotti. The early efforts of the Association was directed at getting race organizers to pay reasonable expenses to cover traveling costs of the lesser known riders, and without these —compromising the great majority of the entry—there would be no Grand Prix racing. However, these efforts had no appeal to the established stars who, in their own right, could command vast starting monies in the knowledge that their appearance at any meeting could attract extra thousands of paying spectators. So they reasoned, why get involved. However, a new set of circumstances arose which affected the safety and lives of all racers—the Armco "safety" barriers. "Safety" for the spectating public but not for the riders . . . to delve a little deeper it is understandable that many of the top racing circuits are used for both auto and motorcycle racing and the old post and rope or wire or sloping earth bank was not enough to hold an out-of-control GP racing four-wheeler and so the immoveable Armco barriers came into use. But these set vertically round the circuits were viewed with alarm by the motorcycle and sidecar boys who demanded some form of cushioning on the face of the barriers. It is in this direction that the GP Association is making its big effort and this has brought in the European top names to membership. It is understood that American racers will be invited to join and add their weight to the demand for greater safety for the riders and no race organizer could afford to ignore the crowd pulling U.S. team, now likely to be regular visitors to the British Isles.

Another gripe is the running of mixed motorcycle and auto racing on the same day—this resulted in much rubber being deposited on the track by the four-wheelers with their monstrous tire treads—this resulted in a danger hazard particularly on the corners where breaking autos shed their rubber and where the cycle boys wanted maximum grip as they heel-over. When the dual meet was held at the German Nurburgring these conditions were met, also overcrowding of the paddock area.

Joel Robert continues his success story when he notched up his 50th moto cross Grand Prix win in the 250cc Dutch round of the World Series. He then took over the lead from the Russian Alexei Kibirine. The Russians, it seems, have not been getting the best of machinery from their near neighbors at the CZ factory, but it was still a surprise when several of the USSR riders turned out on new Austrian KTM moto-crossers. This make has had only occasional experimental outings but it has a very potent power plant, and when seen in Britain one had the impression that a bit of Eric Cheney tube work would be of benefit. Although KTM may not be a name familiar in the U.S., its products are big sellers under the Penton label. It was at the Dutch GP the Russians had two of their CZ's stolen the night before the race. Some talk about a rival camp being involved. However, it is known that the Russians were far from satisfied with CZ support and the KTM experiment may be followed by other makes being tried out as two other makes have been brought for trials in Russia.

Although the 250 and 360 Yamaha moto cross bikes are being raced on the European Mainland none have ap-

peared in England, due one supposes in the lack of a big name rider who is free from factory ties. That master frame builder is producing Cheney frame kits and complete chassis outfits for the Yamaha 250 and 360 MX—all the rider has to do is charm his existing power plant into the Cheney masterpiece. All, did we say? Well there is the small matter of transfer of dollars to Mr. Cheney.

An American visitor to Britain thought he had seen the last of his new 650cc Benelli when it was stolen from outside a friend's house in London, but the thief made a bad mistake. He did not know that this Benelli was the only one of its kind in England, and when a photo and registration details were published in the press, the journey of the thief and the Benelli could be plotted by the phone calls from readers who had spotted the lost bike. 200 miles were clocked before the thief abandoned this very "hot" property; since restored to its owner.

British 500 moto cross and ex-BSA works rider John Banks has had no success since changing over to the big CZ, and he is one of the few U.K. riders who is riding the World Championship series which involves thousands of miles of travel across Europe. He was involved in a paddock punch-up with Arthur Browning following some hefty footwork out on the track in a previous race during the spring holiday weekend. Redhead Arthur is not known for the "soft answer" touch and his impetuosity came to a head after his allegation that Banks had twice cut him up on a corner. Browning is making quite a big name in his new sport of short track speedway where he is often top scorer for his Birmingham team.

When ex-BSA former World Champion Jeff Smith departed these shores for Canada we little thought we should be seeing his smiling face in magazines, but a nationally advertised cigarette firm is using his homely features complete with moto cross rig to advertise the product. We suspect that the weed dangling from Jeff's lips is unlit. Yes, Jeff is a non-smoker.

With the FIM ban on the use of titanium, Maico has come up with an exceptional aluminum frame. The strange thing is that in their search for lightness the factories have not dealt with two items of equipment involving top weight—Maico handlebars with their bolted cross bracing must be the heaviest in use whereas, the little Greeves factory have used unbraced high tensile tube bars for several years now and these are undeniably strong and light. Husqvarna still uses the steel gas tank to the benefit of the alloy tank makers who can save at least 5 lbs. top weight.

CZ importer Dave Bickers is making his annual visit to the U.S. for the Trans-AMA series—with him will go Stuart Nunn also CZ mounted. Bickers has a great liking for the American scene and is well liked over there and indeed the writer knows of no finer sportsman than Dave who has always time for a talk with anyone interested. He thinks the U.S. trip is less hectic than the rush of multi-country moto cross in the World Series with its many frontier and language problems as witness the 500 series held in rapid succession in Austria, Switzerland, Sweden, France, Russia, Czechoslovakia, Britain, West Germany, East Germany, Belgium and Luxembourg. At least he says he is on one strip of land, within one frontier in the U.S. and his ability should make the trip financially sound.

Kawasaki, going ahead with development of their moto cross bikes, will enter the full World Series in 1973.

Norton Villiers chief in the States, Mike Jackson, is due to return to his homeland after a 2-year spell organizing the sales structure over there. Brian Newberry, formerly an AJS dealer in England, will take over as sales manager in America with Roger Strange as

Text continued on page 82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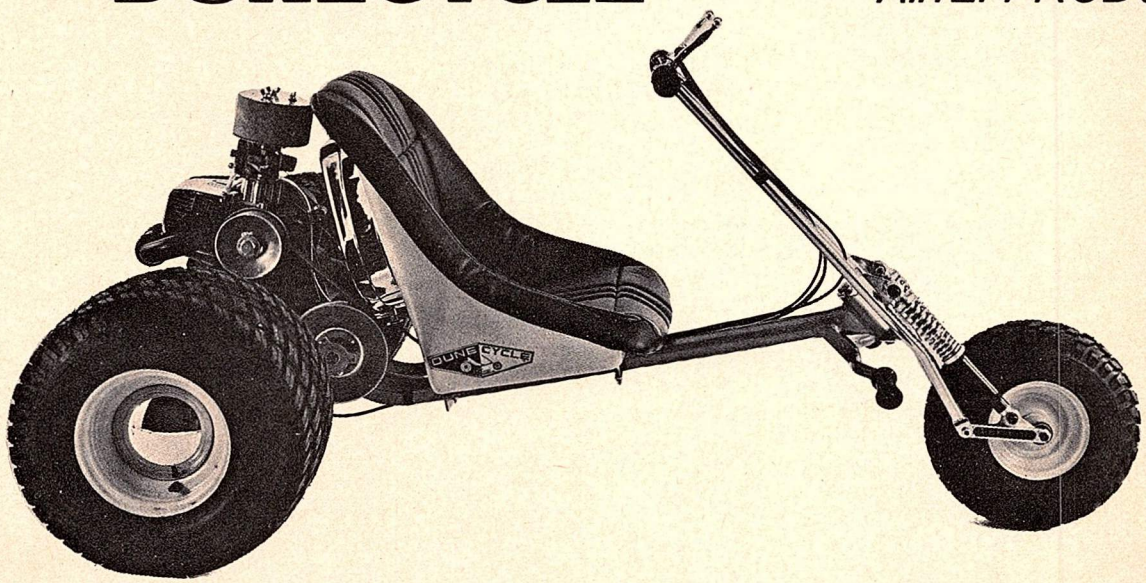


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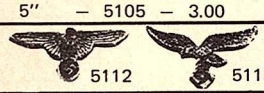

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# MAIL

Dear Sir:

I just want to let someone know what a great bunch of people I met in Valpariso, Indiana. I was on my way to pick up parts at the Penton dealer when my 750 Honda quit due to no spark, and since I was over 75 miles from home . . . I was a little worried.

Two fellows from B & E Cycle Sales loaded by Honda on their truck and took me to their shop. While they searched for the problem, they invited me to try out one of their new Puch motorcycles. Since I ride moto cross, this was a real treat.

They even drove me over to Buck's Cycle & Sport (another great dealer) for my parts. These dealers seem to really work together to help out the cyclist.

I had a really great visit and I invite anyone in the area or driving through to stop at either of these shops. You'll be glad you did!!!

John Mathis
Countryside, Ill.

*You're right John, you meet the nicest people on motorcycles.*

Dear Mr. Ekins:

I would appreciate the opportunity of advising your readership of a helmet model bearing the *1968* Snell Foundation approval identification which does not meet the Performance Standard of the Snell Foundation and is being marketed in violation of agreement with the Foundation.

This helmet model is manufactured by Al-Po Company of Milan, Italy, and is being sold by the Avanti Company of Houton, Texas as the model "*Avanti 21.*"

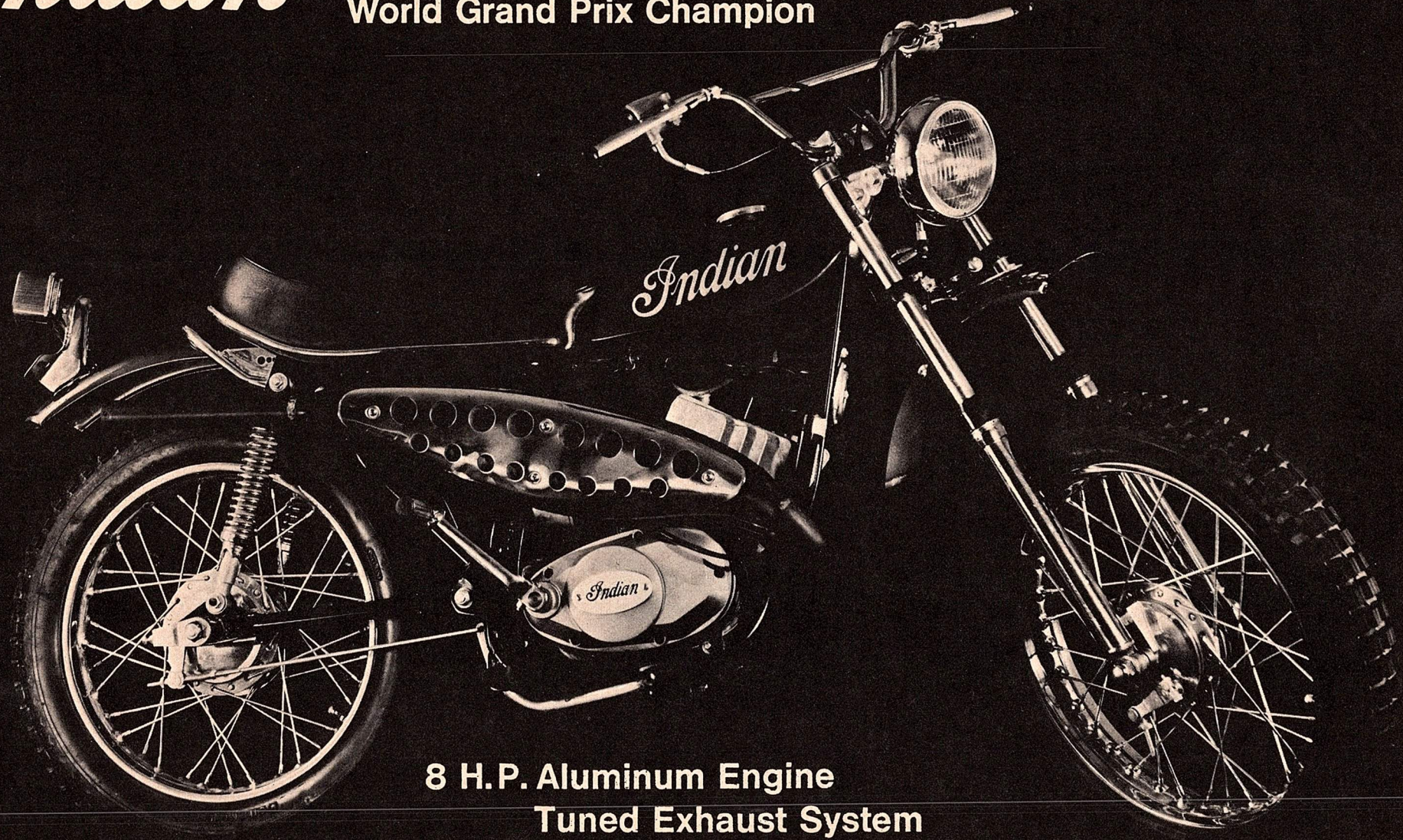
Several recently purchased Avanti 21 helmets have been examined and tested by the Foundation. They were found to be of entirely different construction than models previously fabricated, and thus are in clear violation of the manufacturer's agreement with the Foundation. On tests against the 1968 Snell Foundation Standard, they failed severely. The Federal Trade Commission is so being advised, and an injunction against their sale is being requested of the Office of the Attorney General of the State of Texas.

I would appreciate your help

Text continued on page 10

# Indian SUPER ENDURO-74

## World Grand Prix Champion

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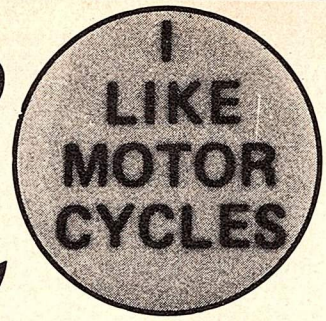
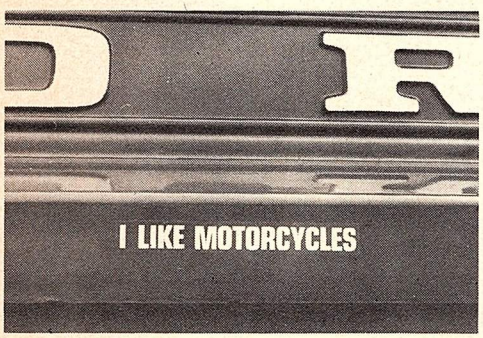
THE Indian MOTORCYCLE COMPANY 1535 West Rosecrans Avenue Gardena, California 90249

# NEW! FROM GROWCO




**1005 I LIKE MOTORCYCLES.** Here's the button that will put the finishing touch to that favorite hat or jacket. These large 1¼ inch pins are white with brilliant red type and sell for: **2 for $1.00; 5 for $2.00.**

**1010 PAIN HURTS.** The button that is guaranteed to bring a chuckle from anyone who sees it—especially those who have gone through an unpleasant experience such as failing to see that two foot ditch while roaring through the desert at 50 miles an hour. OUCH! PAIN HURTS!! These large 1¼ inch buttons are yellow with black print and make a great gag gift. **2 for $1.00, 5 for $2.00.**




**1009 I LIKE MOTORCYCLES.** These stickers are just the thing to dress up the rear window and bumper of your car, truck, etc.

NOT DECALS! , decals are difficult to put on and they also chip and peel in a short period of time. Our stickers are self-adhesive clear vinyl with durable white type—just peel off the backing and apply to any clean surface. These stickers are sold in a set of two; One for mounting on a bumper or outside surface, and the other is printed in reverse for mounting on the inside of a car window. **$1.00 per set of two.**

**1006 WORRY STONE.** Trying to quit smoking? Tension getting you down? Bitten off all of your fingernails? Well here's a better way, try this ancient Indian method of relieving tension—just rub the stone with your thumb and be amazed at the calming effect it brings. Stones are hand carved from solid onyx. **$1.00 each.**

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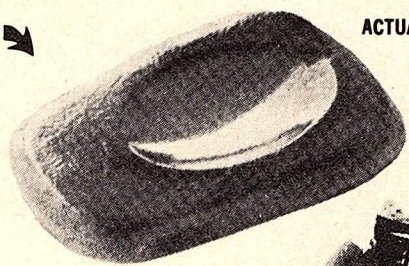

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# MAIL

in advising your readership of the above information.

George G. Snively, M.D.
Director of Research
Snell Memorial
Foundation, Inc.

*Thank you Mr. Snively, we'll surely pass it on.*

Dear Sir:

Will you please send me all the information on the Mexican 1000 and the Baja 500 if you have any, and will you send me the address to the National Off Road Racing Association?

Matt Proffit
Ozark, Alabama

*NORRA as it is known is located at 1616 Victory Blvd., Glendale, Calif. 91201. For $12.50 they'll even make you a member.*

Dear Sirs:

I would like some information on the Mexican 1000. 1) How much is the entry fee for a motorcycle? 2) How many miles is it approximately? 3) Have there been many one-hundreds that have finished the race? 4) What type of terrain would one encounter on the way? 5) What time of the year does it take place? Any answers would be appreciated.

Jim Gilbert
Altadena, Calif.

*Entry fee is $350.00, it is nearly 832 miles, and no hundreds have finished the race probably because none have entered. They have a 125cc class and you might as well take all the advantage you can get. The terrain is the worst and it takes place during early November.*

# A SPECTATORS DELIGHT AND RACERS PLIGHT

# 5TH ANNUAL (and maybe the last) ELSINORE GRAND PRIX

BY MAUREEN LEE
PHOTOS BY GENE AND MAUREEN LEE

We visited Elsinore about three weeks before the race took place. It's a quiet little town right out of "Bonnie and Clyde." Time stops still in Elsinore, most of the residents are retired, the city park looks like early Metro-Goldwyn-Mayer, the main street consists of the liquor store, a market, some small businesses and maybe two beaneries. There's also a huge old hotel reflecting past grandeurs when Elsinore was an "in" spot to take mineral baths.

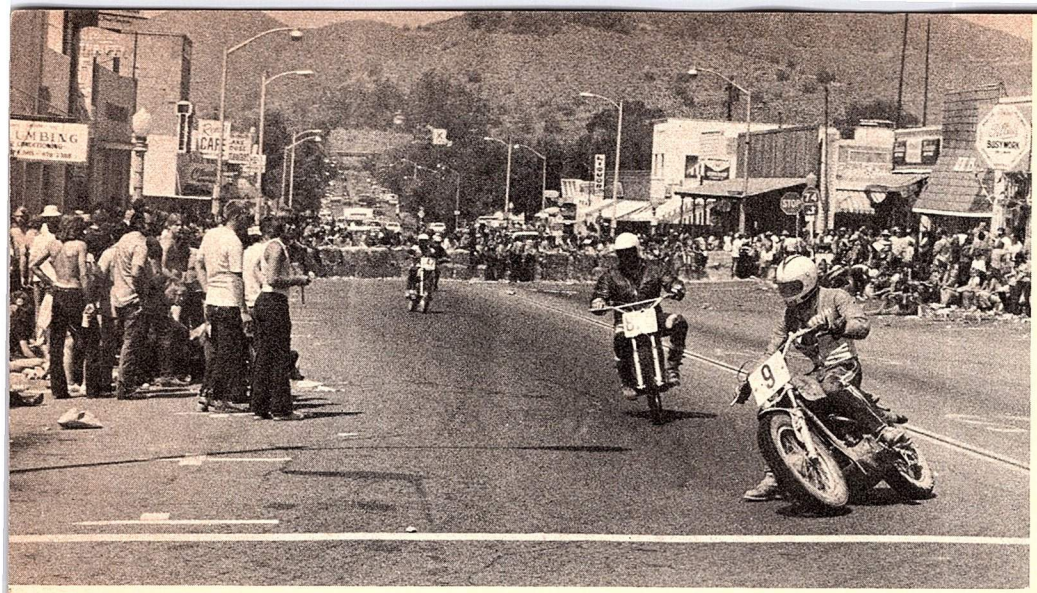
The market is the gathering place for residents, all of whom seem to know each other and the whole place looks half asleep. But once a year, wow! The last such Grand Prix in the United States happens.

This year, it almost didn't happen at all. We talked to merchants who were happily expecting the motorcyclists because of the money they would bring into town, but within a few days of the race some of the citizens brought suit against the City Council and tried to get the race stopped but were turned down.

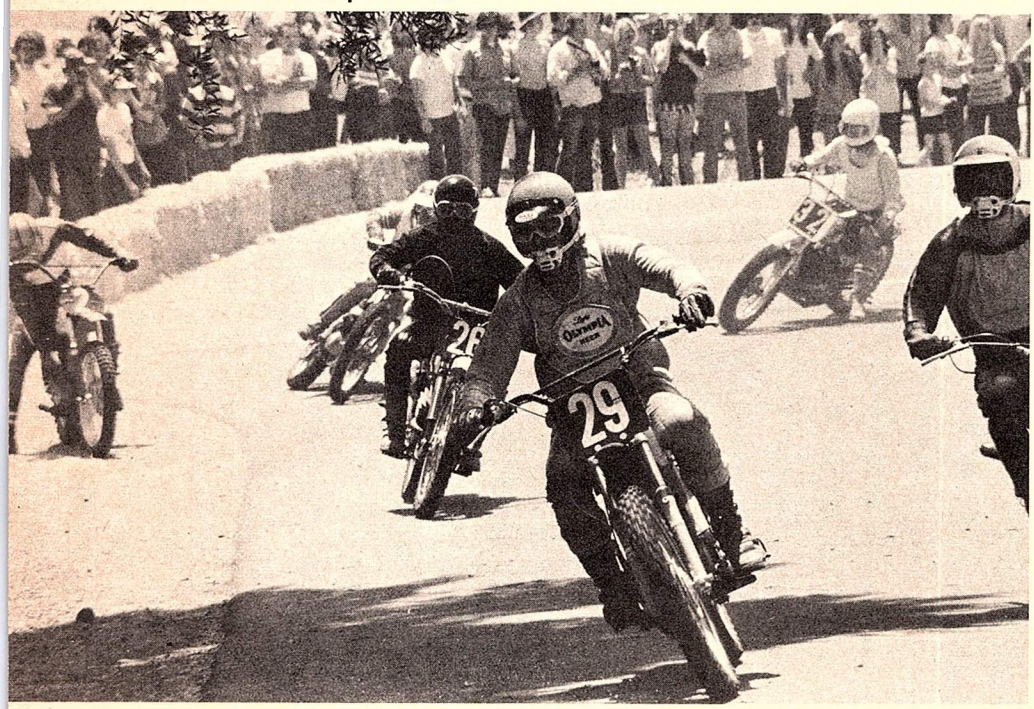
One dear little old lady provided the reason. "I love the bikes," she said. "It gives us something different for a change, but oh, the mess. Once the race is over the City just forgets about us for days and all the trash just lies around until they get around to picking it up. We usually end up cleaning up the area in front of our property ourselves, but we're the ones who pay the taxes. It's not the riders who cause the mess, it's the spectators.

Spectators. That's the word as to why the race may never be held again unless some way can be found of controlling them. Would you believe 11,000 Saturday and 13,000 Sunday? That's what most journalists estimated and the Sheriff's Department went even higher, but give or take a few thousand that's a bunch of people. In the dirt sections the spectators were much better behaved than in town. Some of the people acted like they should be living in trees, but that we won't dwell on. The uglies were there with their choppers, too, encamped on the beach, and so there were Saturday night stabbings and other incidents. The racers weren't involved but everyone got tarred with the same brush by the news media.

In years past, the AMA sanctioned Gripsters M.C. hosted the race for District 37 paying District points, but after four years of it they gave up with law suits still pending in the



Gary Tanner on his big ol' Triumph Metisse throws out a Big John for a little confidence on the pavement.



These first few laps are always a gas on the pavement with each rider trying to out-nerve the other and a hungry crowd of onlookers always helps.

Sliding from pavement to dirt is an art only known to those who race Grands Prix and the likes. The sensation is like riding on marbles.

If three's a crowd this has got to be a gang. The ability of passing during situations like this is the difference between the winner and an also ran.

courts from property damage and injuries to spectators who usually got hurt doing assinine things like running across the course in front of speeding bikes. The District itself was then offered the event with member clubs, officers, etc. all helping but they didn't want it either. The City Council aided by the Chamber of Commerce decided it was too much of a good thing to let slip and did it themselves with no sanction whatsoever.

What happened? Well, it's a bit early to tell yet. The people who instituted the law suits say they'll get back to court again to get the race banned and plan to put up a good

fight. All we can say is it's a bloody shame when a race such as this is closed down because of the spectators and not the racers.

But the racing! Ah, the racing. Elsinore is unreal from the start. The bikes are impounded under lock and key in the baseball field each night. Once the bike is in the impound area, that's it, it had better be ready to race because no tinkering is allowed. Once the gate is pushed open, only the rider may go to his machine. Then he starts pushing, and I mean PUSH! It is blocks up hill and over to the start area; can you imagine 1,100 scooters Saturday and over 1,200 Sunday all lined up on the city main street? Outasite! When riders finally do get into place they're allowed a fifteen minute warm-up period before the banner drops.

The one real bummer about the whole thing is that the Experts go first and have to wait with their machines for sometimes over an hour while the drag catches up and gets into line behind them, and frying in the sun is something no one needs before a race like that. On Sunday, showing his professional know-how we spotted David Aldana stretched out in the shade of a pick-up out of the sun (92°) while most of the others just stuck with it. Another Expert who got comments from his rivals for being so cool about the whole thing was ISDT medal winner Gene Cannady. He looked like he was waiting in line at a super-market, but that's what being a police officer does for you. Everything under control until needed.

John DeSoto, who won both days last year was his usual affable self on the starting line Saturday, but during the race he turned into the tiger he is on the track and emerged with a third place. On Sunday neither John nor his Suzuki were in evidence, one day of dodging those crowds was enough for him and he wasn't the only one either.

On Sunday, rider after rider pulled into the pits, jerked off helmets and said, "I've had it," and they weren't all Novices either. Pro racer Bill Manley aboard his Ducati did the same thing. Racing and dodging spectators are two different things.

Still, plenty continued on. The results on a race like this are horrendous to figure out but the sponsors had a TV tape recording every rider as they swept by a certain point. Then, to figure out things correctly,

they must also take into consideration the rows of riders lined up for the start in ten's leave in ten-second waves so the lapsed time also has to be figured into it. Doesn't that kind of scoring boggle the imagination? The race was ended when one rider completed ten laps, but because of that lapsed time factor he need not necessarily be the winner.

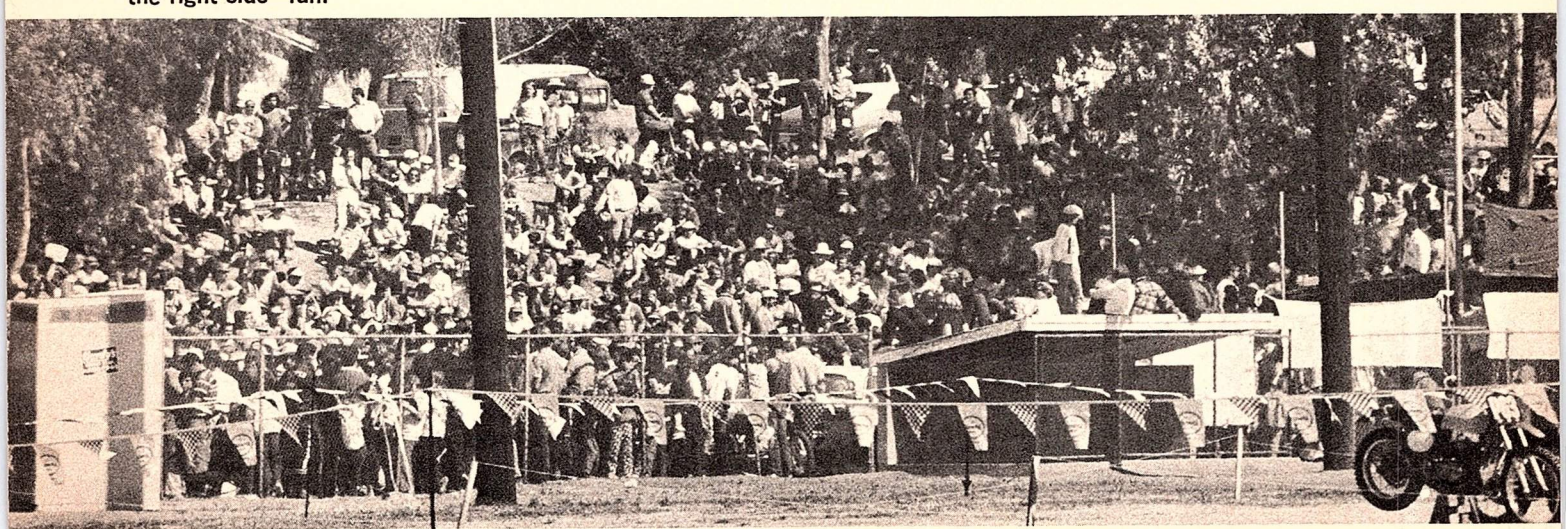
Guessing games as to who won were prevalent on Saturday; the "guessers" had Jeff Wright (Puch) winning, DeSoto second and Dave Aldana (Kawasaki) third. But when the "official" results came out it was good old Gene Cannady and his Yamaha who won, with Wright, DeSoto and Vic Hannan following along behind, and Aldana was down in seventh place right behind Preston Petty. Cannady's number was 68 so you can tell how hard he rode to make up his lapsed time to do 'em in—and do 'em in he did!

Sunday, watchers had Cannady in the lead again. He was running like Jack the Bear but so was Steve Hurd. In fact, coming through town he was "scratching" so hard we'd like to see him take up road racing. Results, though, show Vic Hannan (CZ) as the winner with Hurd second. If Cannady got into trouble on the far side of the course that would have made a difference. That far side of the course gave some of the riders a good chance to pull some monkey business, as they neared the end of the lake.

Yes, Elsinore does have a lake and as Southern Californians we're kinda proud of it, even if it is so shallow you have to wade out a quarter-mile before you get past your waist. At th end of the lake the course took a turn through the boondocks and the riders kicked up a lot of dust. In that dust some of them saw an opportunity to cut at least four minutes off their lap times by course cutting, but according to instructions given, there was a check-point out there to catch the jolly lads if they tried it. Question is, did they get them all, or lose some of them in the dust? No doubt there'll be some protests filed after the results are out to riders!

Following Hannan and Hurd was

**Sidehacks did have their day; this one is a rare BMW outfit about to make a right hand turn with the third wheel on the right side—fun!**



**This is a rider's meeting? It looks more like a Billy Graham rally.**

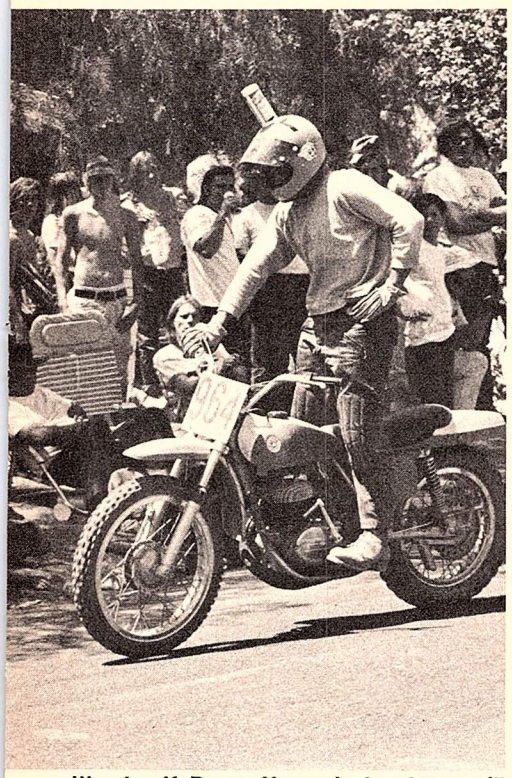
Roger House, Jr. (Montesa) but as we say, things can change. Mike Jackson (AJS), the likeable Limey over here to get AJS and Norton sorted out and running smoothly, was running way up and looked a good third but results have him in fifth. Jackson, who rather knows what he is doing on a course after years in Europe, was a bit upset about what he saw happening around the circuit. For some reason, English riders have bad luck at Elsinore and fall behind for various reasons. One year Derek Rickman was leading but the electrics gave out, and Jackson couldn't get over the course cutting (and knows he lost places in that section), but wouldn't say anything about it until pressed hard for a statement.

Was it a disaster run? Depends on how you look at it. If you were looking for upstanding examples of youth, there weren't too many around or they were racing. One guy was seen wandering around town in a daze with a bandolier of beer cans strapped across his chest as he moved from corner to corner; not to mention some other goings on by other spectators that kept some of the officers busy.

If you were a racer and could put up with the crowds, you enjoyed it even though it paid no District points and would, at one time, be called an "outlaw" run, but it's the last one of its kind since Catalina where you actually get to ride through a whole town.

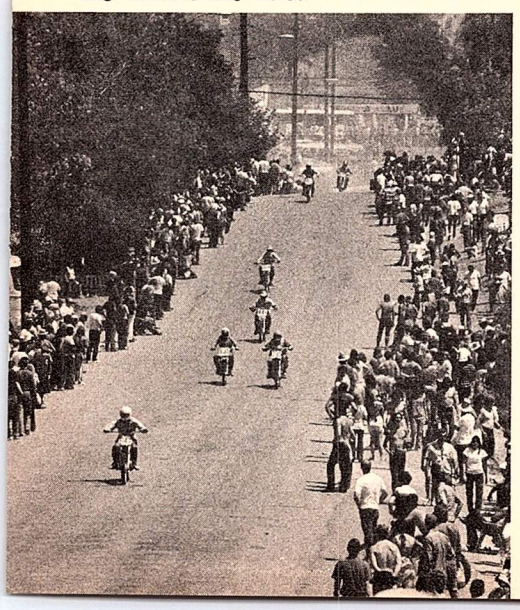
Maybe motorcycling can grow up a bit more and save a classic like this. A sanction and insurance for everyone, including the riders would help; rigid rules as to who gets down to the starting area and a limit as to how many people get into town for the turns where they bunch up in huge groups and then pop out across the course, usually at the wrong time. If this was done, maybe we could hang onto Elsinore.

As a competition motorcyclist myself I guess I feel a bit negative about the whole thing because of the spectator problem, but it would be awful to lose the only race of its kind in the United States. ●



Wonder if Roger Yarrow's headgear will start a new fad? Or does he belong to the Rhinoceros M.C.?

Dust is a problem to rider and engine alike. These guys are chasing each other through some of the powder that makes up half the race course.



This overhead is a favorite spectator perch, didja ever see so many people?

# Nuts & Bolts

Dears Sirs:

In your April, 1972 magazine in the article, "The Hundred That Could," it shows a Van Tech floating backing plate for an AT-1. Could you tell me if it is possible to purchase one of these? If so, would you tell me where and the cost?

If it is impossible to buy this unit could you give me some suggestions for converting my own backing plate?

Bob Almgren
Tacoma, Wash.

*If you peer through the ads in this book you'll find someone who advertises floating rear brake conversions. The whole secret is to have a bearing or bushing fitted to the backing plate that will allow it to spin independently of the wheel. The axle should shoulder on the bush or bearing which in a sense acts as a spacer; the torque arm should also be mounted so both its points pivot. Mount the torque arm so it is parallel with the swing arm and attach it to the frame, not the swing arm. That's really all there is to it.*

Dear Sir:

In your April issue I read about Ken Buckspan's Yamaha 90 MX. In this article I read that Ken bored out his stock Gyt Kit cylinder to 100cc's and put in a Yamaha 200 twin piston and lined the skirts up to the ports, put a 26mm carb to replace the stock 24mm unit, and put a Brooks air cleaner. Could you please ask Ken how all this modification helped in performance (low end, high end, etc.), or did it help at all? Should any cycle dealer know how to line skirts up to the ports?

I also read about the swing arm he installed which is two inches longer than the stock swing arm. Would it be necessary to extend the frame if two inches of tubing are added to the stock swing arm, or would the shocks still work properly?

Tim Graves
Hawaii

*The actual increase in performance on the bike was in top end power (6 additional horsepower over stock), with a noticeable gain in low end power coming from the 10cc increase in bore size. The skirt of the piston should be left stock, but the windows in back of the wrist pin on the 200cc twin's piston, in order to be considered functional, must have holes drilled into the stock 5th port transfer. These two holes (one below each 5th port window), are aligned by placing the piston at Bottom Dead Center. This 7 port effect will relieve trapped gas under the piston dome and gives the fuel flow added swirl from the back washed towards the front. After completing normal break-in procedures let the bike scream while shifting and the added power will be very noticeable. Do not extend the frame. The shortest length Cornutt shocks were used. These shocks work remarkably well at the in-*

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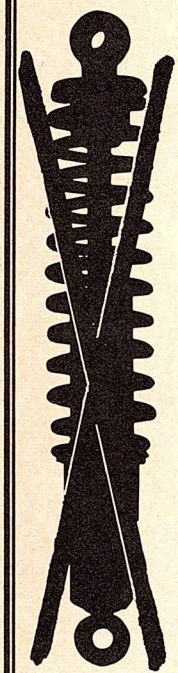

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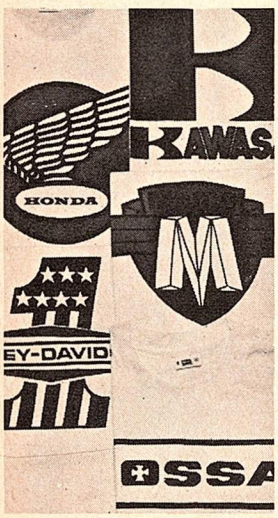


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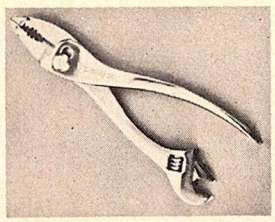

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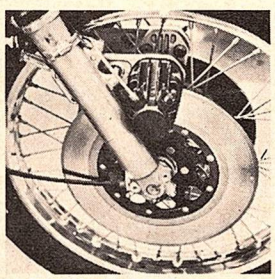

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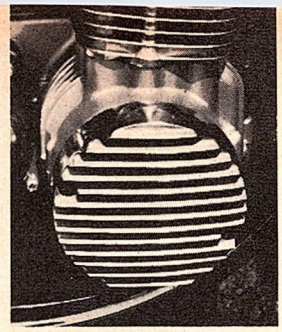

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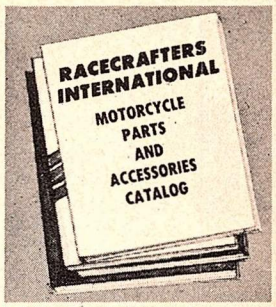


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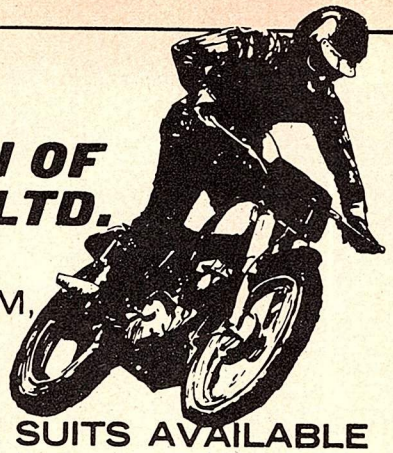

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# Nuts & Bolts

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Dear Sirs:

In May, 1972 you ran a very interesting article on, "Honda's Maxi Mini in Miniature" (CT-70 in 1:6 scale). I was wondering where I could get a kit, how much they cost, how fast it can go, and last of all, is the engine already put together, or must I put it together when I build the cycle?

Karl Kerchner
Ephrata, Penn.

P.S. This is the second *Modern Cycle* Magazine I have purchased (April and May, 1972). I think you have some very interesting articles on motorcycles and trail bikes. Keep up the good work. I like it.

*The model CT-70 is just that, a*

(Text continued on page 36)


# ATTENTION HONDA OWNERS

THE "LUGGAGE-RACK" is available in two sizes:
Standard – ONLY $27.95
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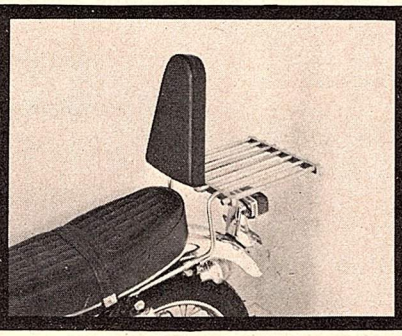
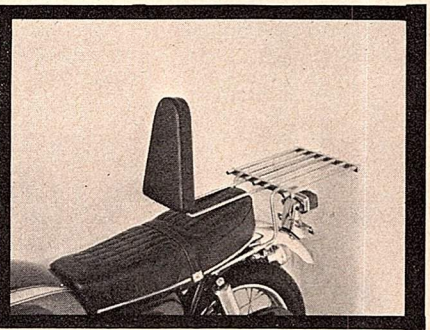
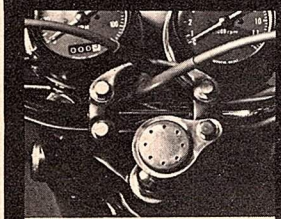


THE "BACK-REST" is a nice option for you or your passenger. Formed of solid steel for strength and triple-chromed for weather-proof beauty. The backrest pad is super durable foam covered with custom black naugahyde for the ultimate in long lasting comfort and looks. ONLY $14.95



THE "LUGGAGE-RACK" is a completely new concept in luggage racks. It is a precisioned-machined, heavy duty, triple chromed, steel accessory with no unsightly welds to break. It utilizes only the rear shock and fender frame mounts for installation and, because it employs solid steel mounting bars rather than tubing, it actually strengthens the motorcycle frame between those two points. No more cracked or dented fenders or broken frames. This rack was designed for Honda Motorcycles and does not interfere with any of the design principles which Honda built into its motorcycles. (Rubber mounted fenders and tail light assemblies, specifically.) THE "BACK-REST", as illustrated above, is a desirable option for the "Luggage-Rack". When riding two-up it will give your passenger comfort and support. When riding solo, it can be adjusted to give you the same comfort and support, while increasing the load capacity of the rack. The "Luggage-Rack" is a durable and stylish accessory that will make your motorcycle a more practical, beautiful, and comfortable place to be.



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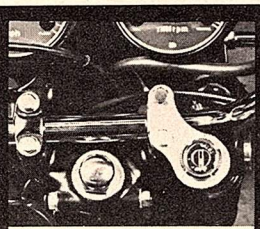

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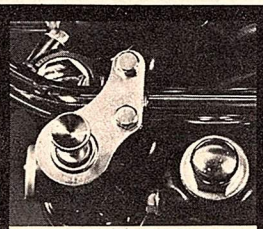
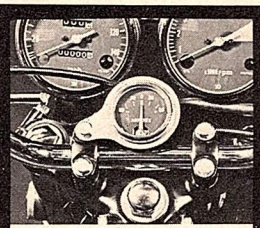


THE "CIGARETTE LIGHTER" is a chrome unit which attaches to the handlebars and puts a light to your cigarette within easy reach. ONLY $4.95



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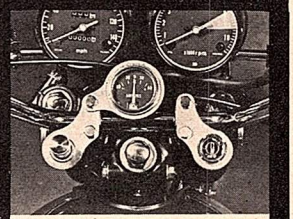

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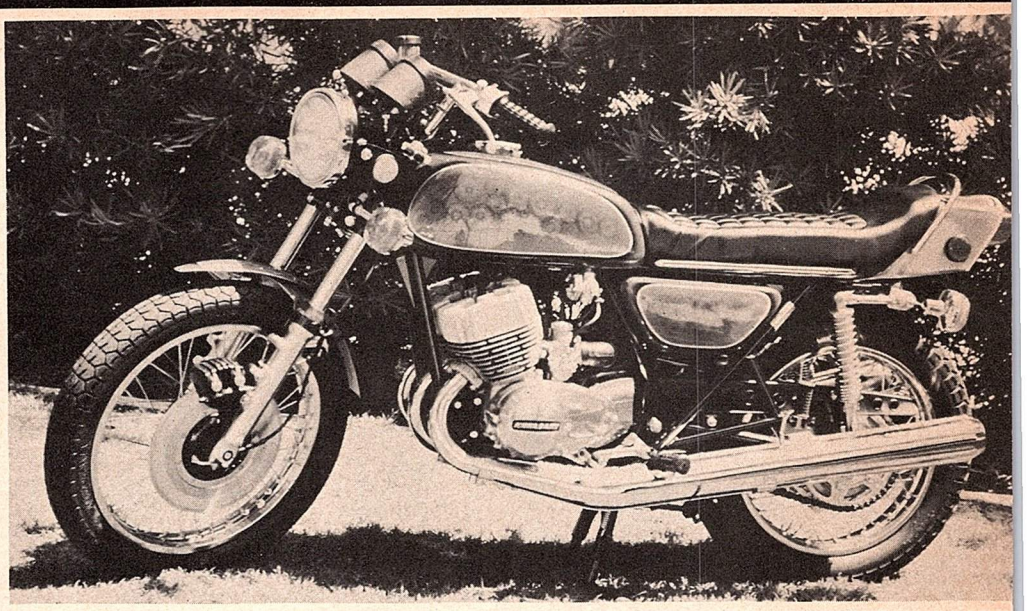
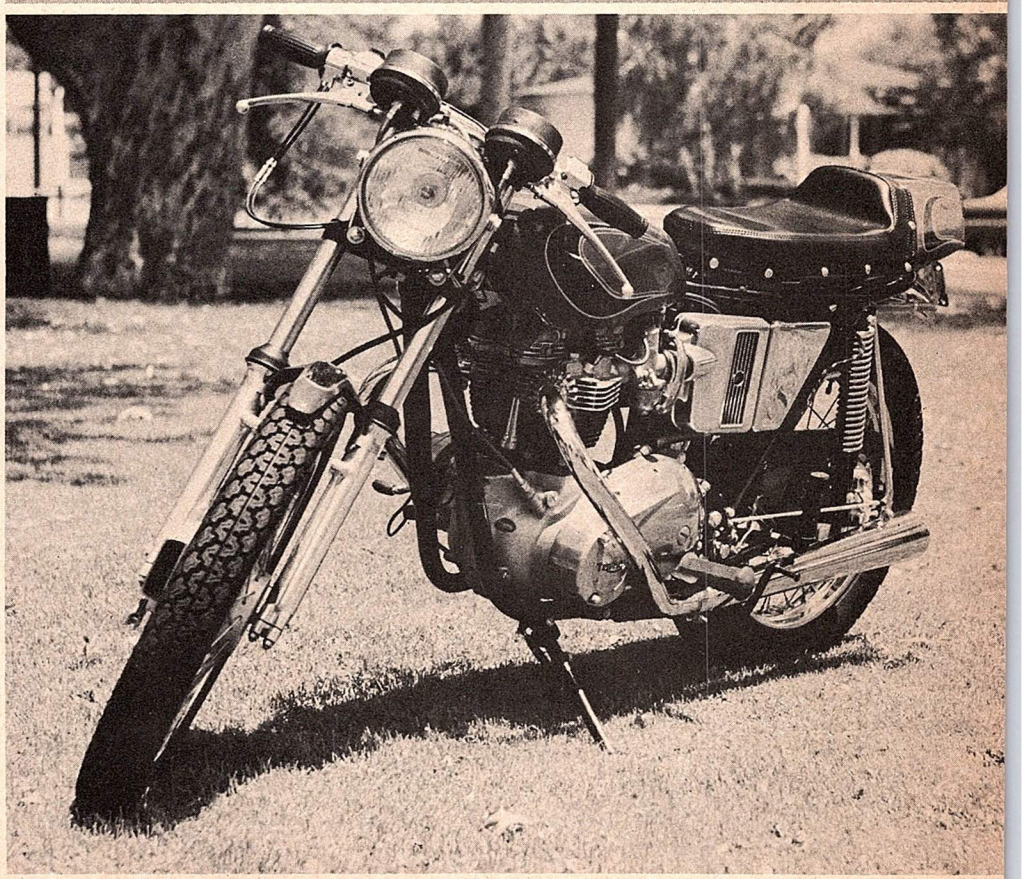
# The Wild World Of Cafe Racers

## COULD THIS BE THE NEWEST TREND IN THE STOP LIGHT TO STOP LIGHT SCENE?



Triton



The term Cafe Racer is British, it's referring to those special touring bikes that sport huge petrol tanks, clip-on bars, and silenced megaphone type exhaust systems. They are patterned after the Manxman, or production road racers seen at the September meetings on the Isle of Mann. Referred to as Ton Up (which means they'll go 100mph) pure Cafe Racers displace 500cc's or more.

The term Cafe Racer came about because small groups of these aggressive guys on their neophyte racers would get together after work and race about town from cafe to cafe. Naturally the ideal racer would be a Works Norton road racer with lights hung on it. But few of these were produced and the cost was rather high for a play bike so practicality had to enter the picture.

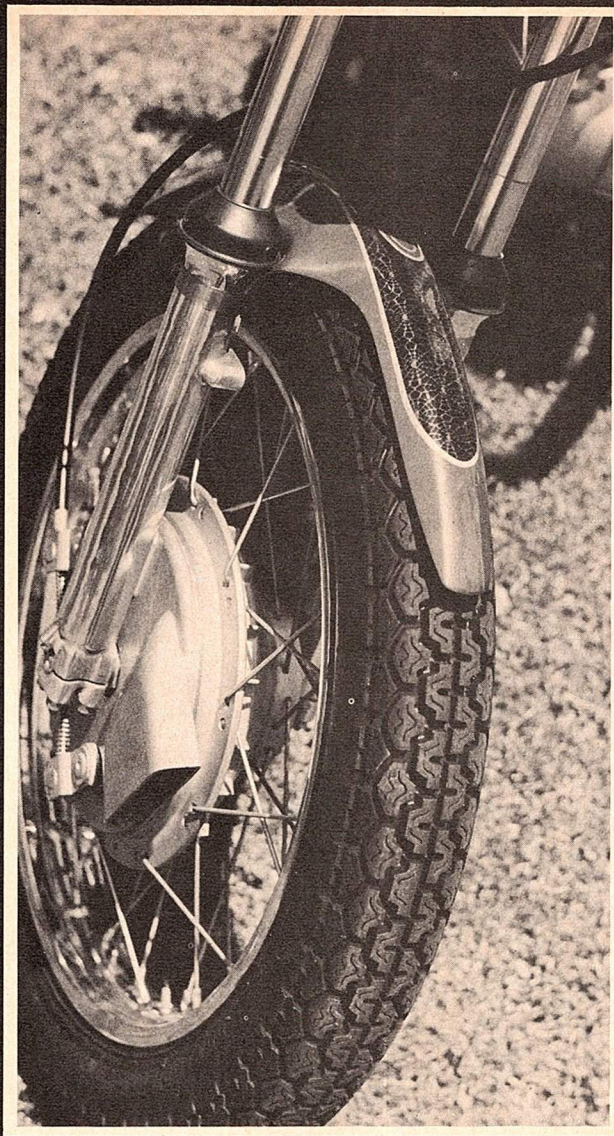
A typical Cafe Racer of a bygone era would be a 1954 Norton Featherbed crassis, the best road frame of its decade. A late 650cc Triumph engine in unit with its gearbox or fitted to a Norton gearbox was desirable because of the relability of the Triumph powerplant. The racer

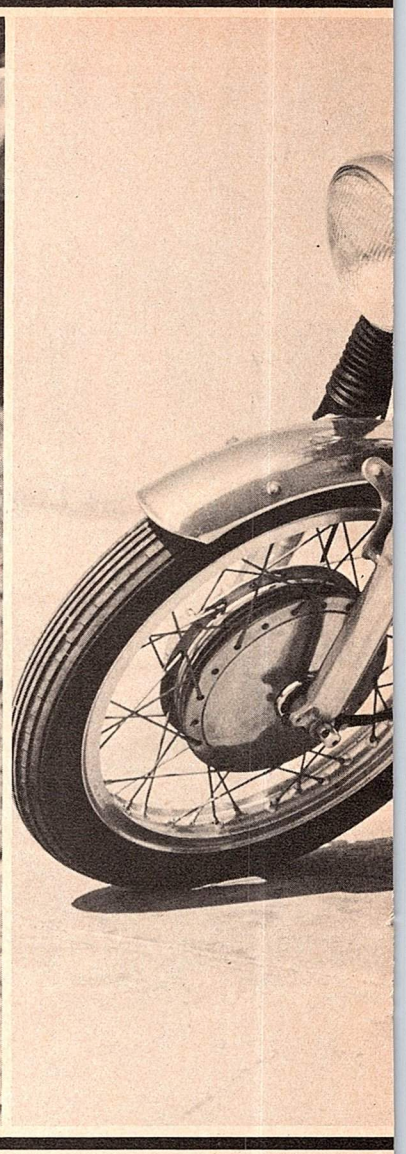
would have low bars, rear set footrests, and a 5 or 6 gallon gas tank. Most are set up to carry a passenger, although the Bird would have to set up while racer Read would be crouched over the fuel tank, an awkward sight.

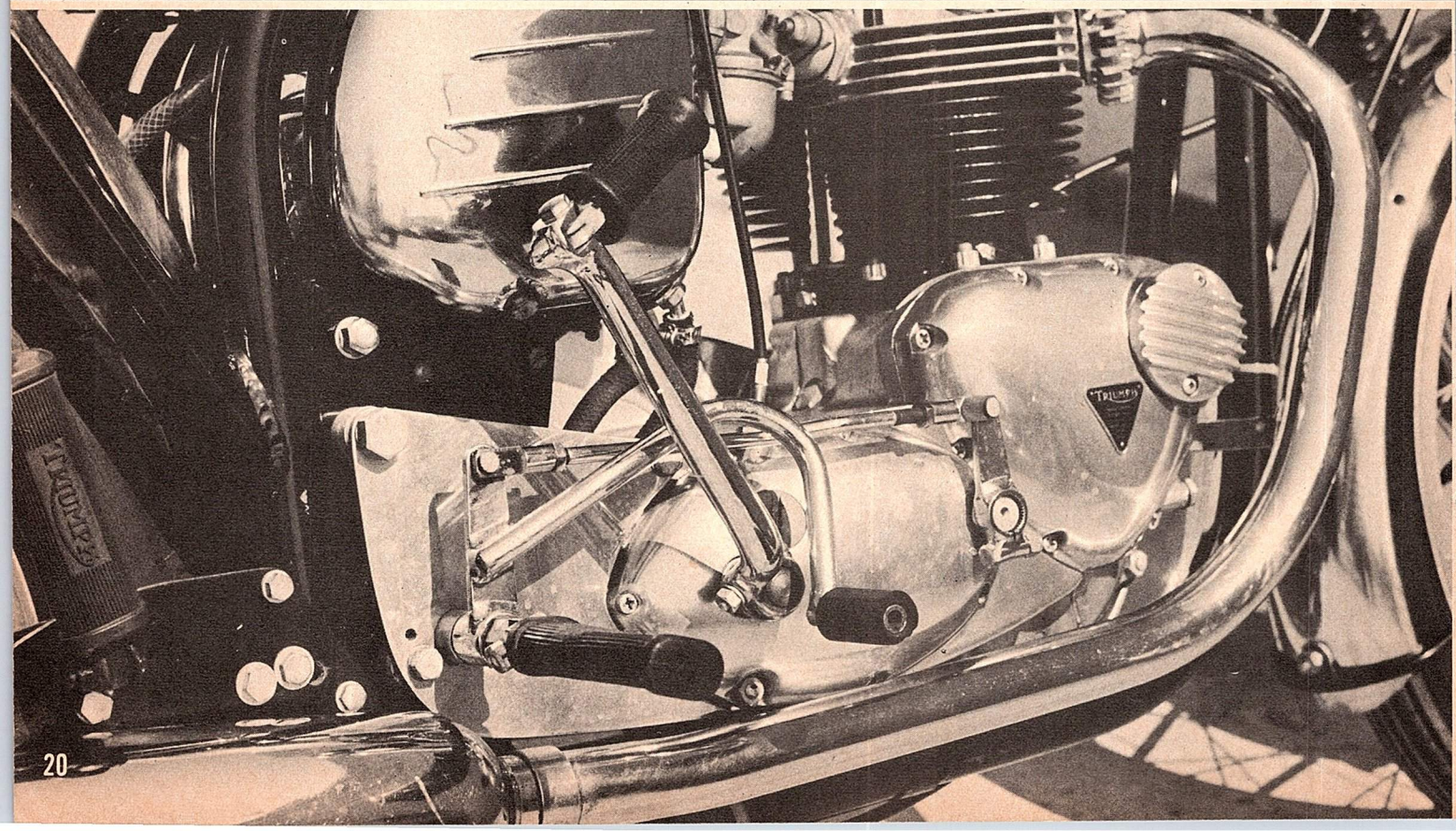
Cafe Racers are a heck of a lot more practical than stretched forked, front brakeless choppers, although neither allow the rider to sit in a natural position. Within the next few years we are about to enter an era of the Cafe Racer on these sunny shores. They won't be made from select bits and pieces such as what was done in England. There won't be Tritons (Triumph-Norton combinations) or Tribsas (Triumph-BSA), we'll be seeing pure machines with accessory changes rather than marque conglomerations.

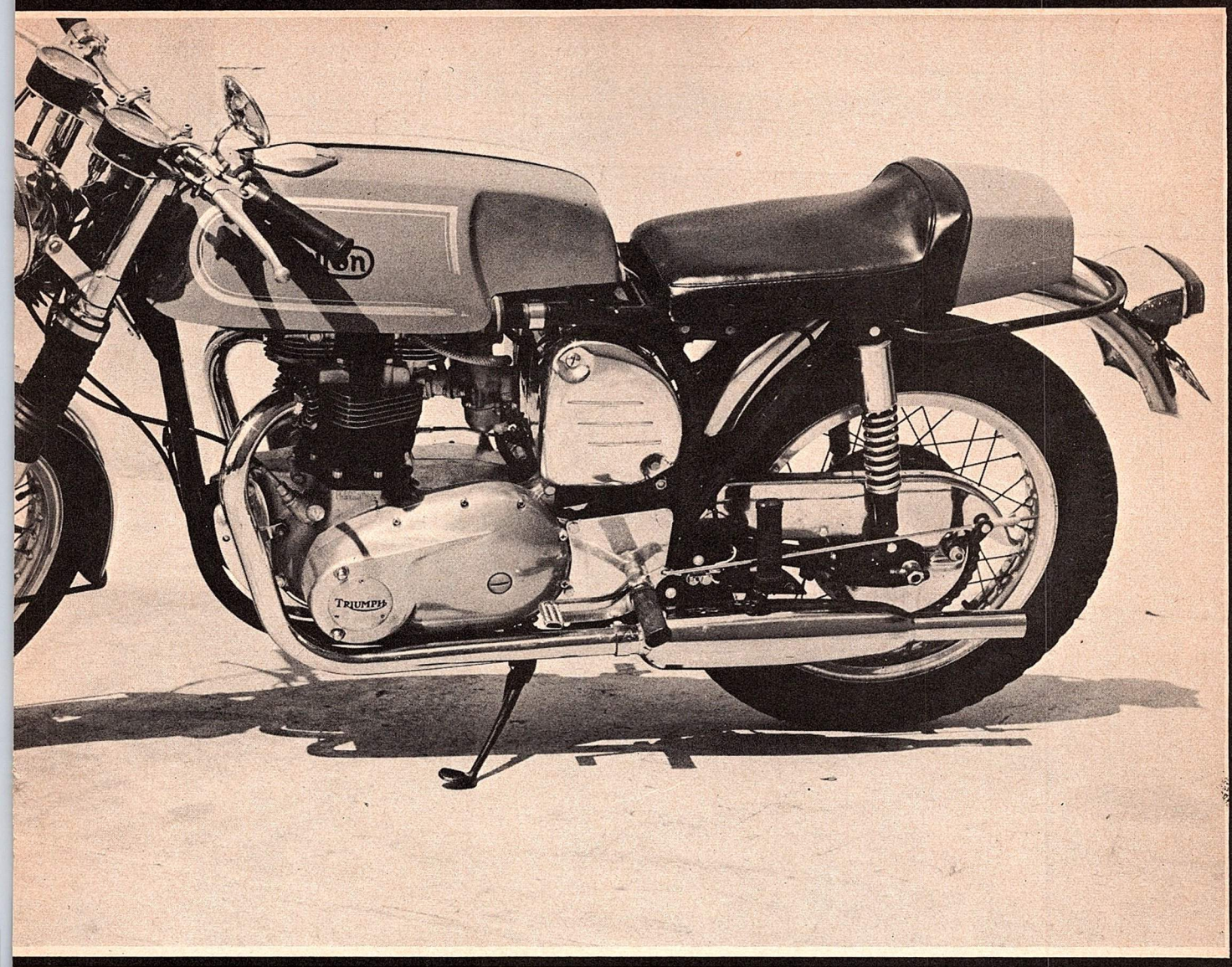
Surprisingly, Triumph of Burbank has set a pattern with the racy looking Kawasakis. These machines with their unique seat/fuel tank styling lend themselves to Cafe Racer lines. Consequently few pieces are added and the major styling change is the tiny front fender and custom paint.

The Triumph is quite different featuring Manx type exhaust pipes, a road racing seat, and a really wild fiberglass fuel tank. Over the next few years we're gonna see more and more motorcycles tailored to the Cafe Racer idea. Only Triumph of Burbank likes to call 'em "City Slickers." For added information write Triumph of Burbank, 1329 North Hollywood Way, Burbank, California 91505. ●





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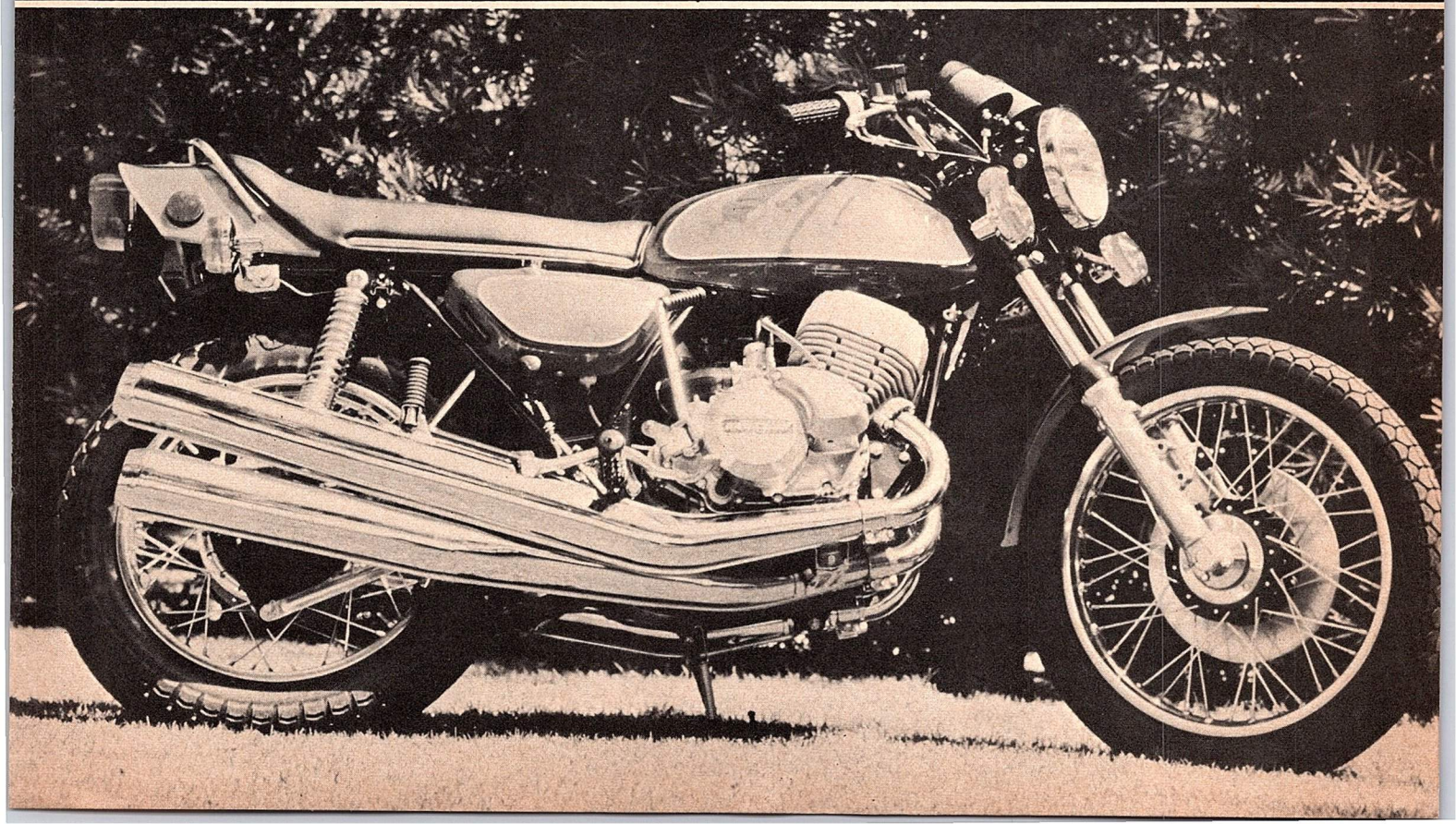
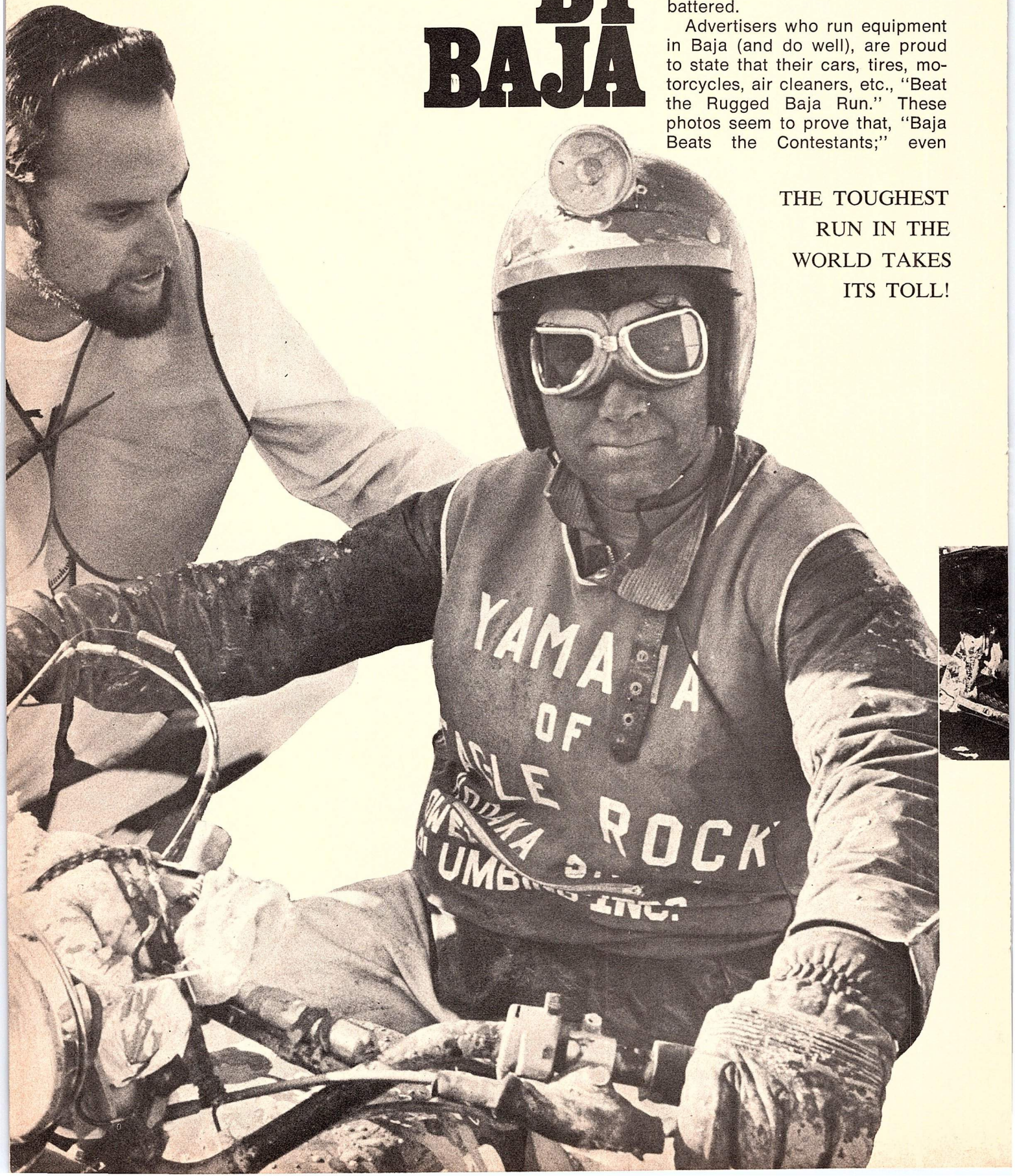


# BATTERED BY BAJA

Looking through our file of photographs taken during recent Baja races we were greatly impressed with certain pictures that showed the condition of the bikes that did make the finish line. With few exceptions the machines were badly battered.

Advertisers who run equipment in Baja (and do well), are proud to state that their cars, tires, motorcycles, air cleaners, etc., "Beat the Rugged Baja Run." These photos seem to prove that, "Baja Beats the Contestants;" even

THE TOUGHEST RUN IN THE WORLD TAKES ITS TOLL!



those fortunate enough to finish.

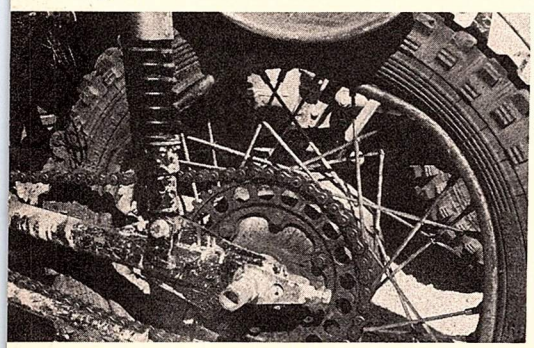
Just finishing is no easy matter, the attrition rate in the Baja races is around 50%. Besides mechanical failures of which there are many, wheels and tires take the most punishment. To win you must go fast and the Baja Peninsula is one giant rock pile, not the easiest surface to ride a motorcycle on.

Malcolm Smith has said, "In order to just break even, you've got to win this race." He's not kidding. This year a first in class paid the magnificent sum of $2,000. Balance this against an entry fee of $350, the rider's time away from work pre-running and racing, and the wear and tear on machinery (as the accompanying photos show, many of the bikes are almost totally wasted), and you'll see that Malcolm is right.

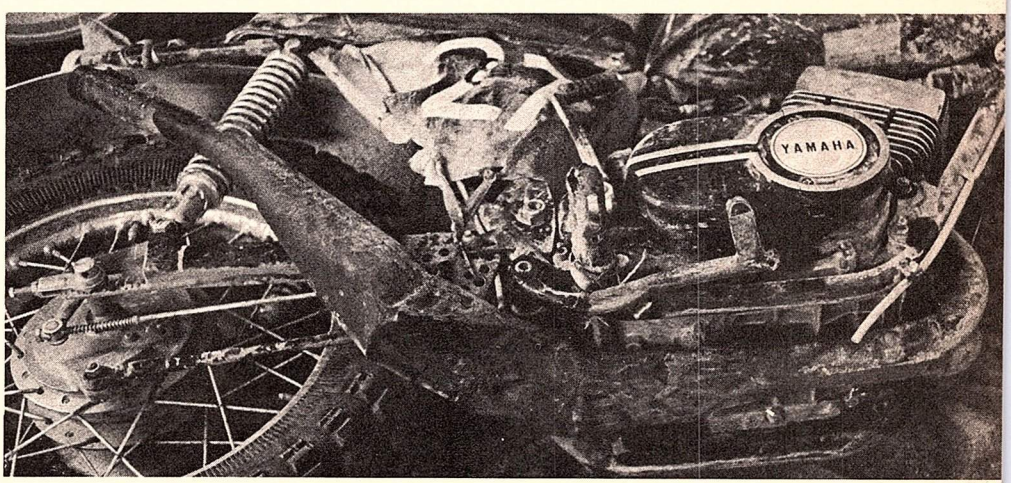
The Baja run attracts a certain breed of rider who loves to pit his skill and talent against some of the most demanding terrain in the western hemisphere. These men would race if there were nothing more than a brass trophy at the end of the run. To finish the Baja you've got to be a damn good rider, to win it you've got to be a great rider! ●

*The winning Husky sits in the impound at the finish with several yards of rope wrapped around its rear hub. Crunched fender is the result of a high speed endo.*

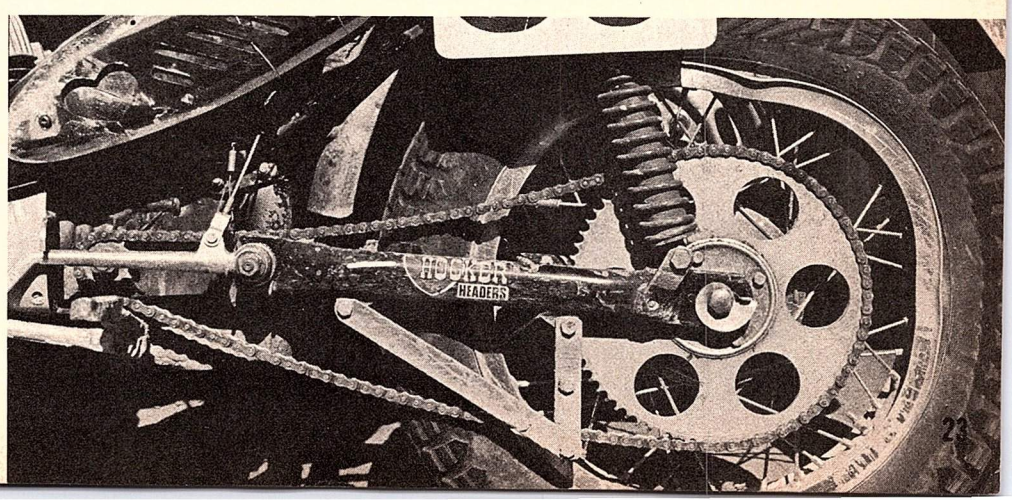
*Swedish rider Gunnar Nillson at the finish in La Paz. Nillson, who had unloaded in a cactus patch, arrived at the finish with a badly lacerated chin and cactus spines embedded deeply in his hands.*



*This 175 Puch, ridden jointly by Al Baker and Dick Miller, lost the aft section of its expansion chamber and sustained some pretty heavy damage to the rear rim. Machine finished 10th in class.*




*Down pipes are obviously not the hot set-up for the Baja run. This 350 Yamaha, ridden by Mike Patrick and Phil Bowers, sports a "trick" Barum Six Days knobby.*




*The winning 125 H-D Baja covered much of the distance with a "squared" rear wheel. Note the scuffing on the tire caused by the cocked wheel rubbing on the chain.*

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To show that you're a MAN (Motorcyclist Against Noise), pick up one of these free LESS SOUND = MORE GROUND buttons at your local participating motorcycle dealership.

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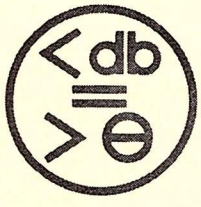


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MIC MOTORCYCLE INDUSTRY COUNCIL

# UP ON THE PEGS

## Who Goes and Who Don't — The Trask Two-Day Qualifier

This is an Olympic year, we all view the Olympics as the most important sports contest on this planet. A Gold Medal in Munich this summer means there is no one better.

Within this small world of motorcycling we have our own Olympics, only ours happens once each year. For the first time it will be held in the United States in 1973. The Olympics of Motorcycling is the International Six Days Trial. Besides international prestige gained by those manufacturers and nations that win, you, the motorcycle riding public, also benefit. Because of the fierce competition each year, the competing motorcycles improve and many of these improvements filter down to the production bike you or I may end up purchasing. It's a good thing.

Because of logistics, and the fact there are only 24 hours in each day, the ISDT is limited to about 300 en-

# UP ON THE PEGS

tries. Supported vigorously by the European nations and run under strict rules, this event carries as much weight as winning the moto cross or road racing World Championship. You can safely say it's a biggie, and we are very fortunate to be hosting the event in 1973.

Obviously there are going to be several thousand American hopefuls who will feel they are capable of riding this event; especially as the time gets near and momentum builds up to a fever pitch. Unfortunately for these people it will be too late.

There were six ISDT qualifiers held in the U.S. this year to determine who will go to Czechoslovakia and approximately how they will perform, plus the additional qualifiers during '73 will pretty well determine who represents our nation in the '73 Olympics of Motorcycling.

The fourth qualifier was the Trask 2-Day held in northwestern Oregon. For such an important event, not too many entered; about 150. Among those that did show were some of the most capable and qualified Six Day riders we have. Topping the list is the Penton team. This family, headed by the very enthusiastic Six Day supporter John Penton, has really taken the lead not only in winning the past qualifiers, but in supporting them too by being there. As our Trophy Team representing the U.S. last year on the Isle of Man, Penton motorcycles and people, took our country to an unprecedented fourth in world standings.

Penton's East manufacturing team of Tom Penton, Dick Burleson, and Doug Wilford had a tremendous battle for high point honors with Penton West. The west boys were Gene Cannady, Carl Cranke, and Jeff (Bosch) Heininger. Cranke was fastest overall in the special tests, and, had Jeff not broken a flywheel, their performance would have placed the East team in the number two position.

Yankee sent out their Ossa stars Dave Latham, Don Cutler, and Charley Vincent. They took the 250 team trophy home. Also on hand for Ossa was Barry Higgins who did quite well by not destroying his 250 and going home with a Gold.

Husqvarna West had a very good team entered with two transplanted Swedes and Malcolm Smith. Only one Swede, Lars Larsson, started. Several other teams appeared but none had the talent supplied by Penton and Yankee.

The Trask area is a magnificent place to ride motorcycles. They have all the ingredients necessary to put on such an event except a pinch of common sense. Enthusiasm, township cooperation, and the organization to go out and get the job done properly is all there. If they rectify just two mistakes next year's event should be flawless.

One, they chose special test sites that were a bit on the dangerous side and didn't danger mark any of it, while most of the rest of the 350 miles of trail was danger marked. The other problem, and probably the most important, was their use of postage stamp-sized triangles to

(Text continued on page 32)


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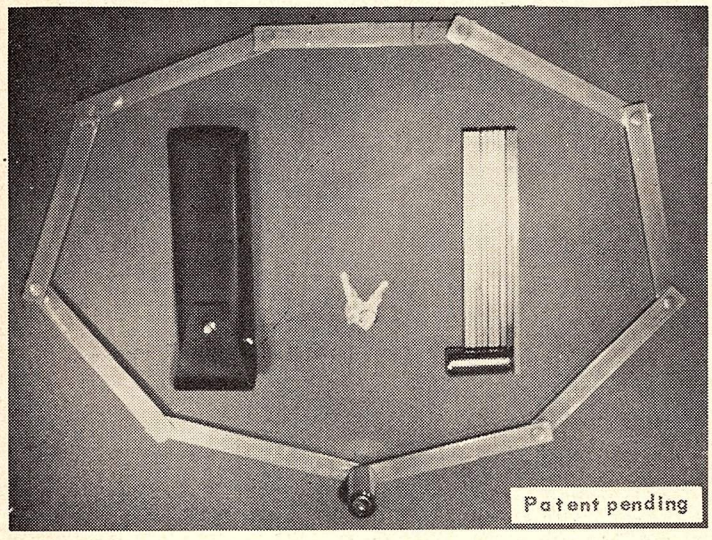


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**$19.95 plus handling (Add. $1. east of the Mississippi and $2 west of the Mississippi) No C.O.D. Reg. check or money order**

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WHITECRAFT ENTERPRISES, INC. MC9

# SUZUKI TEST: TM250J

## A PRODUCTION REPLICA THAT HAS LOTS TO OFFER

Suzuki are here! Suzuki are here on the road and now they are here in moto cross. In Japan there is a fierce battle going on between Suzuki and Yamaha for second place in world motocycle production. Honda is long gone but then Honda makes those valve in head four-stroke things. The battle seesaws between this two-cycle making pair, and, at the moment Yamaha leads in total number of motorcycles sold. Suzuki leads in World Championship moto cross titles three to nothing.

Several years ago, while still actively contesting the World Road Racing Championships, Suzuki hired Swede Ole Pettersen to help develop a moto cross racer. Petterson campaigned the experimental machine three seasons without winning but made great contributions towards the final racer which Joel Robert has taken to victory after victory. At this writing it looks like Joel will have his third World Championship in succession on Suzuki.

But there is a whole lot of differences between the super sophisticated, trick alloy works racers Joel rides and the one you or I can buy. About fifty pounds. And Suzuki agrees that their Grand Prix racers are very special and not for sale, at any price. What they did do that benefits us is apply what they learned while racing into a production moto-crosser that we can afford to purchase. At first glance these two machines are so similar it's scarey.

Frame design, geometry, and engine location looks to be spot-on. Even the wheel hubs look to be the same. But they're not. The difference is in the materials used by the works department in an all-out effort to get weight off. Magnesium, titanium, and aluminum are found on the Grand Prix bikes. Fenders are a nearly transparent plastic and the expansion chambers are made from such thin material that they must be replaced between heats of a moto cross, otherwise they'll crack and shatter.

Obviously, you or I don't have the racing budget to replace hand made expansion chambers between heats. Nor do we have the talent to take full advantage of all the refinements found in a Grand Prix racer. Like formula cars there are but a few men capable of extending these machines to their full limits. But, for those who want to try, there is a long learning curve involved and the Suzuki moto-crosser is as good a place to start as any.

This is a production racer, all 239 (wet) pounds of it, not an enduro bike stripped of its lights and other street necessities. It has tough alloy rims, a smallish front brake, and knobbies front and rear. The expansion chamber comes down and underneath the

frame exiting in a conventional stinger and it looks like a giant boa constrictor who has just devoured a full-size rabbit, whole.

Within the belly of that expansion chamber is wire mesh packing deviously put there by Suzuki in an effort to deaden some of the noise. Trouble is it also lops off some of the power, too. We found the TM-250 to accelerate very hard to a point and then just go flat. It does turn the R's as you would expect from a moto cross 250.

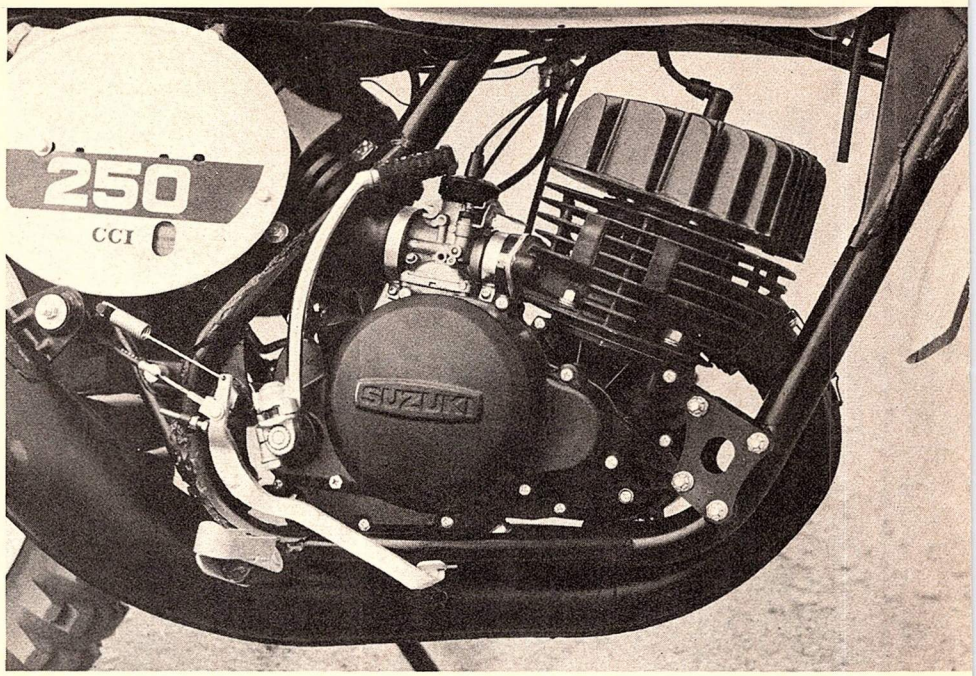
As is Suzuki tradition the engine carries very little flywheel weight allowing it to pick up rpm's super quick. Because of this they come off the line fast but are a little difficult to control on a slimy or muddy race track. While racing on a moto cross course with the test bike we found it to handle fairly well, but performance seemed hampered by a long step from 2nd to 3rd gear. If the engine turned another 1,000 rpm it would then be running fast enough in second to pull third.

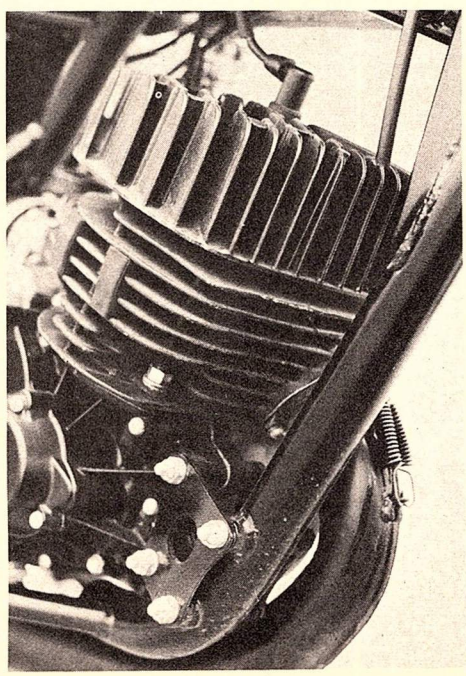
Some of the better Suzuki TM-250s in this area have had the packing removed from the expansion chamber, the exhaust port raised 2mm, and a carburetor from the 400 Suzuki installed. They work a whole lot better, and that jump between second and third isn't so noticeable.

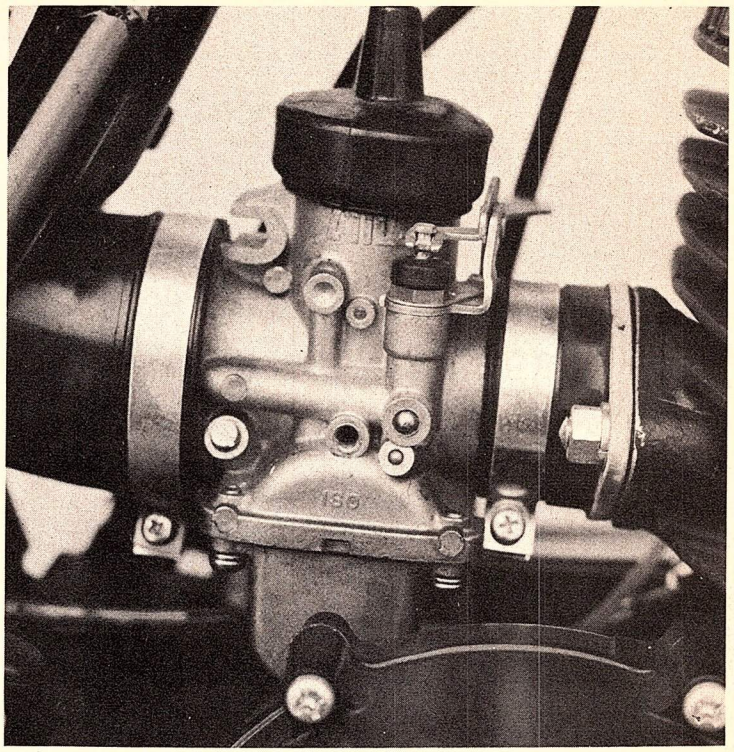
The bike lofts into the air nicely and you can control its attitude before landing. If you land hard on the rear wheel with the front too high it will slam the 3.00 x 21 on the ground hard transmitting the shock to your hands and wrists. The forks don't seem to work when you slap 'em with a jolt. The rear end is pretty decent though.

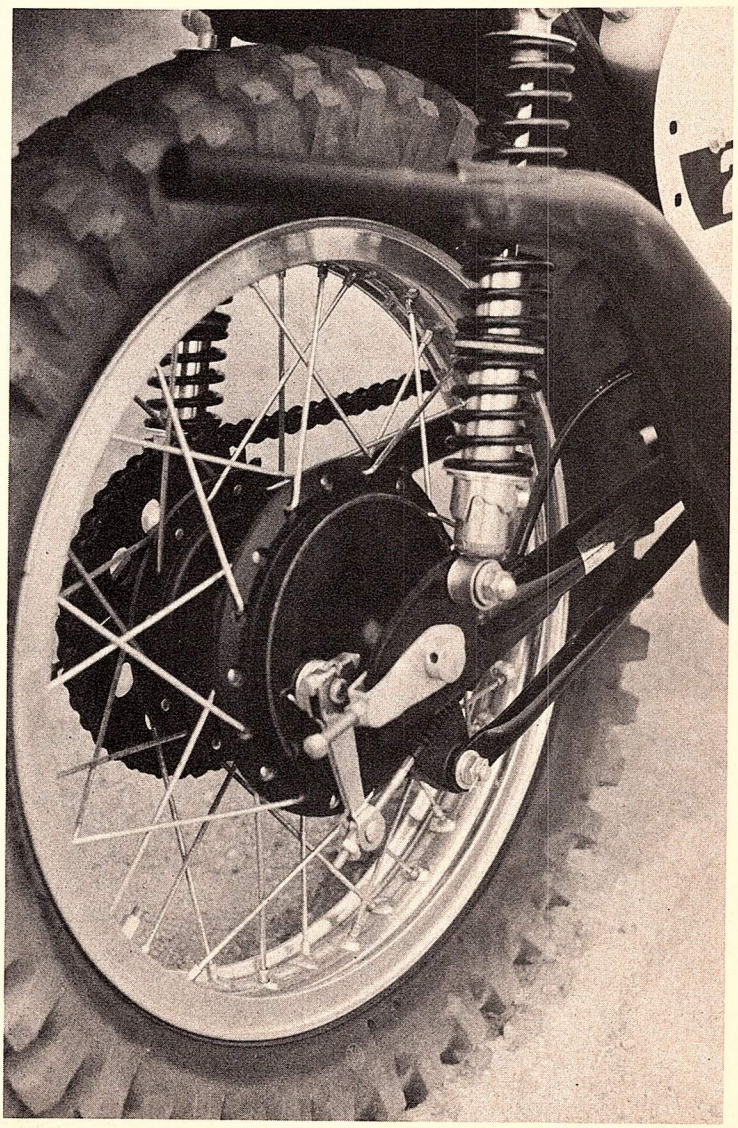
Frame geometry and balance is such that you can stuff it into a berm without a hassle and come out fast. On a flat gravelly turn you need to transfer your weight way up on the tank so the front tire sticks. The long narrow seat is designed for all kinds of movement over the machine and that's part of the secret to going fast on a moto cross course.

The engine is very responsive yet throttle control is fairly good. Suzuki uses a progressive-type









throttle; one where the first half of your throttle movement raises the slide only one-third. Then, the next half opens it the rest of the way. As touchy as these racing two-strokes are a slow operating throttle in the early stages is quite an improvement, it gives you more precise control over the engine.

The front brake seems just right for stopping, not too sensitive but strong enough to do the job. The rear wheel is almost too good. Partially because of very little flywheel affect in the engine, a rigid mounted backing plate, and in conjunction with a cable operated rear brake, the rear wheel sometimes chatters when it shouldn't. This usually happens when you're using the brakes across a series of short bumps, it gets especially embarrassing when you brake hard for a left hander and find you've killed the engine.

With long flat handlebars the bike sits like a moto-crosser. Levers and controls are readily accessible and work very smooth. The clutch, although not used often, has a light pull and operates smoothly. Shift lever throw is very short and positive. While riding the bike all you need to do is think about changing to the next gear and it does it, almost.

To start the TM250 all you need to do is push down the richening lever on the Mikuni and kick it once or twice with the throttle off. The machine needn't be in neutral as it has a primary kickstarter. Once running, and this happened with three different people, if you pop it in gear and drop the clutch the engine dies. This is simply the characteristics of not having much flywheel. To make it go just slip the clutch a little and you're off! We didn't find any low gear turns at the Indian Dunes Shadow Glen course. Second, third, and fourth were exclusively used. The bike pulls out of those hair-pin turns in second and a skillful rider can dial his own wheelspin.

A final bit of comment on this motorcycle is its fuel tank. A 2.4-gallon gas tank is really not necessary for an honest to goodness moto cross racer, it also weighs a bit much. The bike comes with a bunch of very advanced features not likely to be found on its European counterparts for many moons; P. E. I. ignition which means no contact breakers to fall out of adjustment and an electronic ignition advance. Another nice feature is Suzuki's Posiforce oil injection that pressure feeds oil to the left main bearing and connecting rod big end. Just put gas here and oil there, she does her own mixing.

Within the realm of out of the box moto-crossers, Suzuki's TM-250J is a very good one. They have taken what they have learned on the World Moto Cross tracks and applied it to a machine which most of us can afford. ●

# MAKE SUZUKI
# MODEL TM250J
# PRICE AS TESTED $900.00
# MAXIMUM SPEED AS GEARED 70 mph
# WEIGHT 239 lbs. WET: Fuel Tank 50% Full

Distributor ..... U.S. SUZUKI MOTOR CORP.
13767 Freeway Drive, Santa Fe Springs, Calif. 90670

## ENGINE

| | |
|---|---|
| Engine Type | SINGLE CYLINDER, 2-STROKE |
| Bore | 70mm |
| Stroke | 64mm |
| Displacement | 246cc |
| Compression Ratio | 7.5:1 (CORRECTED) |
| B.H.P. at R.P.M. | 30 AT 7,500 |
| Carburetor | 32mm MIKUNI |
| Ignition | SUZUKI P.E.I. |
| Starting System | PRIMARY KICK |
| Lubricating System | SUZUKI C.C.I. |

## FUEL AND OIL

| | |
|---|---|
| Oil Capacity | 1.3 PINTS |
| Oil Recommended | PETROLEUM 30W |
| Fuel Capacity | 2.4 GALLONS |
| Fuel Recommended | PREMIUM |
| Approximate mpg | 40 |

## FILTERING SYSTEMS

| | |
|---|---|
| Air | WET POLYURETHANE FOAM |
| Oil | SCREEN |
| Fuel | SCREEN |

## FRAME

| | |
|---|---|
| Frame Type | SINGLE DOWN TUBE |
| Weight Distribution | FRONT: 44%, REAR: 56% |
| Wheelbase | 55.8 TO 56.8 INCHES |
| Ground Clearance | 8.5 INCHES |
| Peg Height | 12 INCHES |
| Seat Height | 32.5 INCHES |
| Handlebar Width | 34 INCHES |

## SUSPENSION-TYPE

| | |
|---|---|
| Front | TELESCOPIC |
| Rear | SWING ARM |

## SUSPENSION-TRAVEL

| | |
|---|---|
| Front | 6 INCHES |
| Rear | 4 INCHES |

## DRIVE TRAIN

| | |
|---|---|
| Clutch Type | MULTI-PLATE, WET |
| Primary Drive | GEAR (3.19:1) |
| Countershaft Sprocket | 15 TEETH |
| Final Sprocket | 40 TEETH |
| Final Drive | SINGLE ROW CHAIN (2.67:1) |

| Gear Ratios | Internal | Overall |
|---|---|---|
| 1st | 2.42:1 | 20.57:1 |
| 2nd | 1.80:1 | 15.50:1 |
| 3rd | 1.28:1 | 10.88:1 |
| 4th | 1.00:1 | 8.51:1 |
| 5th | 0.83:1 | 7.07:1 |

## TIRES AND WHEELS

| | |
|---|---|
| Front | 3.00x21 KNOBBY |
| Rear | 4.00x18 KNOBBY |

## IMPRESSIONS

| | Poor | Good | Excellent |
|---|---|---|---|
| Throttle Response | | | ● |
| Acceleration | | | ● |
| Power Band | | | ● |
| Starting | | | ● |
| Engine Noise | | ● | |
| Muffling | | 90Db(A) | |
| Vibration | | ● | |
| Handling | | ● | |
| Choice of Tires | | ● | |
| Suspension | | ● | |
| Rider Comfort | | ● | |
| Transmission | | | ● |
| Instrumentation | Does Not Apply | | |
| Lighting | Does Not Apply | | |
| Toolkit | | ● | |
| Paint and Chrome | | ● | |
| Styling | | ● | |
| Mileage | | ● | |
| Braking | | ● | |

Text continued from page 26

# UP ON THE PEGS

mark the course with. This might have been alright if they had placed wrong way markers on the roads that many of us took thinking we were going the proper way. This is the only time I have ever ridden a cross country event that didn't have wrong way signs.

Other than that, the Trask was a successful event with many more clean scores posted by the contestants than found in past ISDT qualifiers. It wasn't easy, but it wasn't impossible either. Some of the antics of this event are quite humorous.

On the first morning Barry Higgins was caught pushing fellow Ossa rider Buck Walsworth's machine out to the start line thinking it was his. Buck yelled, and Barry dropped the bike like a thief in the night.

Honda had a heck of a time getting LeRoy Winter's SL-125 up to him, and then LeRoy had his own problems trying to get the Honda over a certain hill that wasn't the least bit easy.

Dave Evans continued his streak of bad luck by not finishing this one either.

Bob Steffan had everyone aghast when they spotted a huge 4.00x19 Dunlop Trials Universal tire on the front of his Bultaco Montedero, he finished with no marks lost.

Charlie Hockie fixed three flat front tires during the first morning and still ran clean the entire trials on a 350 Bul.

Ron Jeckel was one of four XL-250 Honda riders; isn't he the Greeves distributor?

English trials ace Lane Leavitt rode 75% of the course with collapsed front forks and still finished with a loss of 1 mark, and that's only because he kept getting lost with a host of others.

Of the one hundred and forty-five riders, 50 came from California, 39 from Oregon, 16 from Washington, 11 from Idaho, and 29 miscellaneous. About 14 states were represented in the miscellaneous column and they had one entry from Alberta, Canada.

Last year Trask drew 67 entries and still had the event; the Las Vegas 3-Day was cancelled because they didn't get an expected 300 entries, it is said they had 70.

And the final word is about Bruce Brown. It seems Bruce tangled with a sapling late Saturday afternoon and got flung to the dirt tearing a few ligaments in his left thumb. He was still on his Gold at impound the first night. Next morning, Bruce came to ride with a fully taped left hand and a whole lot of spirit. He said it only hurts when he pulls hte clutch in. Bruce went ahead and rode the next day but couldn't keep up the blistering pace required to remain clean, he also had problems getting lost. But finish he did, and this put him up a couple more rungs on the ladder I measure men with.

Just had a phone call from Mr. Benny Braun, the public relations man at Fort Hood. He said the Fort Hood site for the 1973 ISDT has been cancelled, it will have to be held somewhere else. Al Ames, Russ March, and Don Woods had inspected the area and said the terrain wasn't rough enough. Which leaves me to wonder about a whole lot of things now.

Rumors about what's coming

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is always of great interest and certainly stimulates the imagination. The 750cc water cooled 2-cycle Yamaha four so many people made a lot of noise about hasn't progressed much beyond the wood and metal mockup shown at the Tokyo Motor Show last October. Reason is Yamaha has three transverse fours on the drawing board, a 250, 350 and 500. They're dual overhead camshaft 4-cycles, seems air polution was a big factor in this decision along with the sluggish acceptance of Suzuki's 750cc water-cooled triple.

Another firm to jump on the transverse four bandwagon is Kawasaki. They have a 902cc DOHC engine with 66x66mm bore and stroke. The manufacturers claim 82hp (which seems correct) and the bike weighs about 30 pounds more than the K-2 Honda fours. Suzuki, the only major Japanese firm not to go 4-cycle is deeply involved with a Wankel type power unit.

They're not standing still in Italy either, Benelli is very close to releasing a 1000c transverse 6!

Yoshimura Racing, the people who get more horsepower out of Hondas than Honda, has a U.S. based operations. They will not only mailorder Yoshimura racing goodies like cams and pistons, but are setting up to do porting and other engine work too. Fujio Yoshimura, Pop's oldest son is managing the business, and with the oncoming popularity of cafe racers Fujio is going to be a busy lad. Yoshimura Racing, 2190 N. Shasta Way, Simi Valley, Calif. ●


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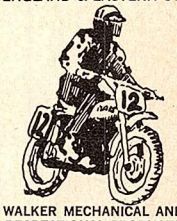

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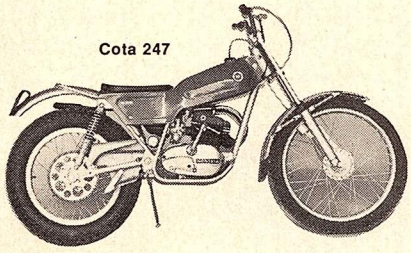
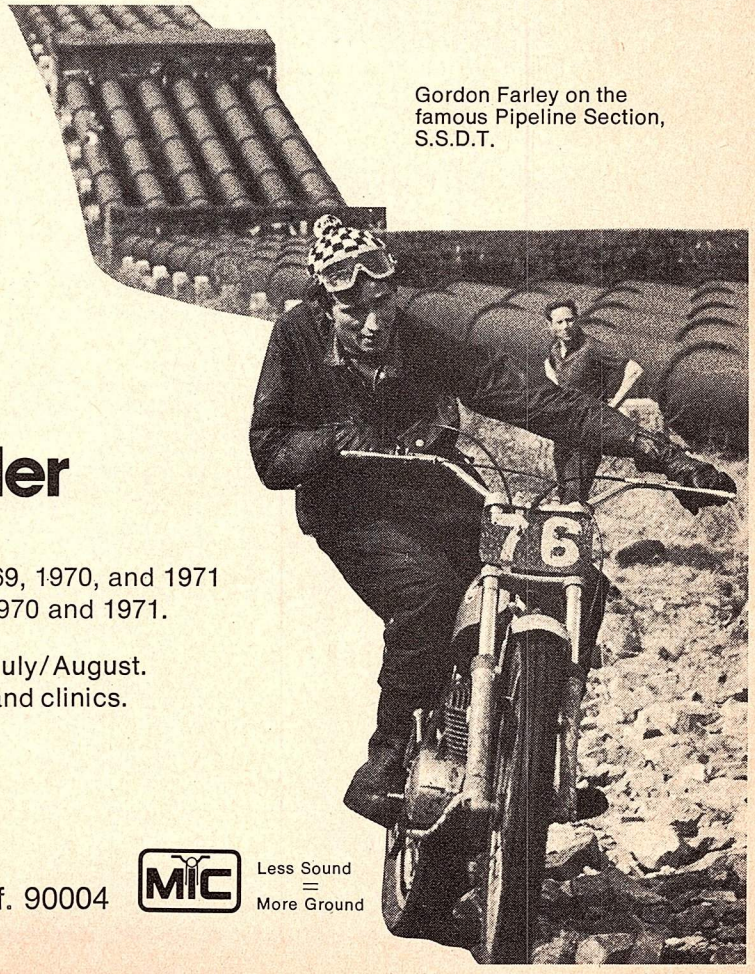


Cota 247



Gordon Farley on the famous Pipeline Section, S.S.D.T.

# This motorcycle and this rider

won the Scottish Six Day Trials (Team) in 1969, 1970, and 1971 . . . and the British Trials Championships in 1970 and 1971.

Teammate Rob Edwards will be in the U.S. in July/August. Watch for places and dates of his exhibitions and clinics.

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# New Products

## "BIG T" GLOVES

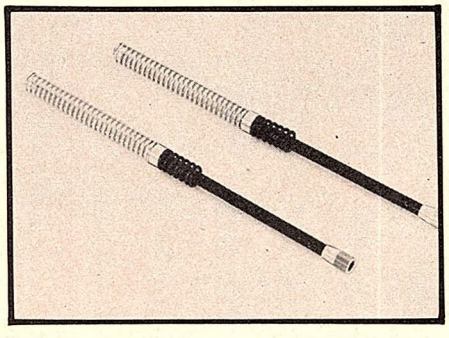
The latest concept in European moto cross gloves from England. Made of soft, flexible English leather. Velcro dry sticky fastener at the wrist eliminates that too tight feeling found in gloves with fully elasticated wrists. Fingers and knuckle areas on the back of the gloves are moderately padded, giving vital protection to the back of the hand, yet allowing maximum movement of fingers.

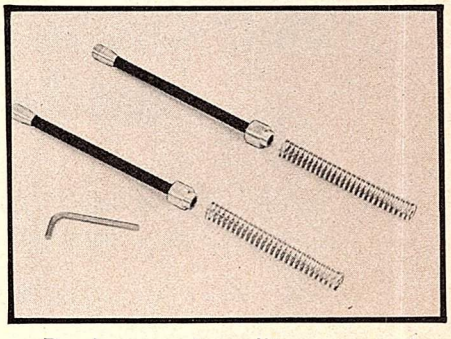
The glove is black with a choice of blue, red, yellow, or white trim on knuckle/finger area and at wrist. Tarantella Big T gloves are available in sizes, small, medium, large, and extra large. Note! The small size is suitable for children only. For further information on purchasing the Big T moto cross gloves contact, Hyland M.V., P.O. Box 39393, Dept. MC, Los Angeles, 90039.

## LO-O-ONG TRAVEL

Certainly one of the simplest, least expensive and most foolproof mods to be found is S&S Engineering's new fork kits for the Yammies. Tested and proven in off-road racing across the Mojave Desert of California, the kits add inches to suspension travel, beef up the spring rate, and alter the damping to give a more stable ride under the demanding conditions found in cross country competition.

Two kits are available. The 10162 fits 125 AT-1 and 175 AT-1 and 175 CT-1 models adding 1¼ inches of travel for a full 6 inches, preventing bottoming for heavier riders through use of stronger, cadmium plated springs. Kit #10163 is for the 250 DT-1, also lengthens travel by 1¼ inches, with a result of a full 7 inches. Heavy helper springs are included with the long damper tubes to give a gentle ride with great resistance to bottoming. No special adaptation or modification is necessary. Complete instructions are given as well as a wrench for installation. Sold by better dealers nationwide, the kits retail for $29.95 each.





Producers of quality accessories and performance parts, S&S Engineering will send their latest catalog #281-SE for 25¢ to cover the cost of postage and handling. Write them at Box 1646, Thousand Oaks, California 91360.

(Text continued on page 62)

# The Suzuki 750 water-cooled three. It gets competition hot trying to keep up.

And if trying to keep up with a GT-750 is hard, you know that passing one is out of the question.

The Suzuki 750 will wind out to 120 mph.

It delivers 20% more low-end torque.

And it'll run hard all day without getting hot.

Thanks to water-cooling.

Water-cooling lets the 750 run 30% cooler than any competitive machine.

Water-cooling also gives us the closest engine tolerances we've ever made. So the 750 runs virtually noise-free. And sounds like no two-stroke you've ever heard.

Water-cooling also means the 750 won't lose any of its 67 horses due to engine heat distortion.

You can bend corners with a 750 that you've only wrinkled before. That's how good it handles.

Brakes are Gran Prix racing type: double cam, double panel. Lots of chrome and brightwork. Outstanding paint job. Electric starter. Engine cut-off switch, CCI automatic lube.

And of course, that radiator.

Get hot, get a Suzuki GT-750.

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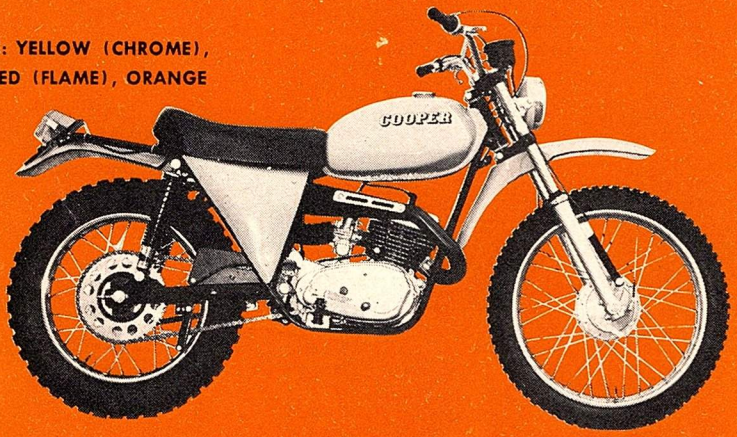


**DESIGN.** Combines European 6 Day Trials with U.S.A. Enduro features. By Frank Cooper, pioneer of American moto cross.

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# Nuts & Bolts

Text continued from page 18

*model. It will go as fast as you propel it by hand, although realistic looking, him don't run. You can find it at the better hobby stores.*

Dear Sir:

I enjoyed the article on the "Yamaha Mini Hop-Up," in last month's magazine. Could you supply me with the address of Chuck Smith's Torque Engineering, or any other shop that could provide the parts such as; Proto air filter, Fun 'N Fast disc valves, or tuned exhaust?

Thank you for a great magazine.

Dr. Jack B. Upchurch
Raleigh, No. Carolina

*Torque Engineering*
*19755 Bahama St.*
*Northridge, Calif. 91324*

Dear Sirs:

I am looking for someone to sponsor me in Scrambles racing. I am 15 and live in the country. I practice on a small bike on a track that I made myself.

My brother is sponsored by *Look* Magazine and races a Bultaco 250. I would appreciate it very much if you could find me a sponsor.

Ed Koleen
Kerman, California

*In this strange world Ed, you've got to find your own angels. Sorry.*

Dear Sirs:

I write concerning a letter from Roger Hanson who is in need of points and condenser for his Gilera. Since I am an unfortunate owner of such a bike I have had similar problems. Could you please tell him that the electrics from the Gilera are taken from Ducati's and, therefore, points and condenser are adaptable without trouble.

Would you also inform him that I bought my Gilera as a basket case for thirty dollars and put 5,000 miles on it the first summer I had it. It is now bored out and I am going to race it for the first time in the Fallen Timbers Na-

Please turn page

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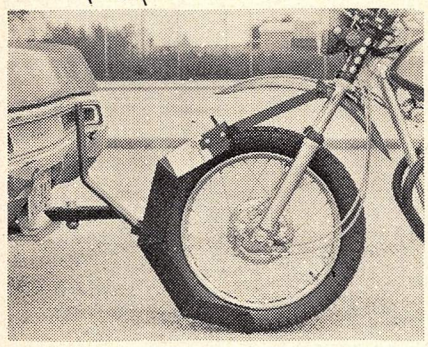

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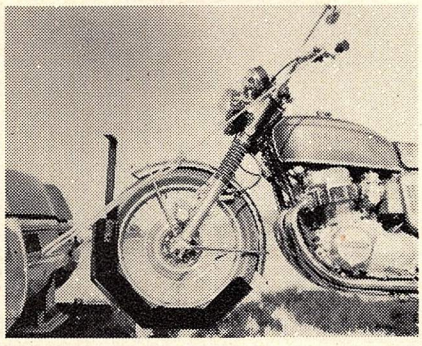

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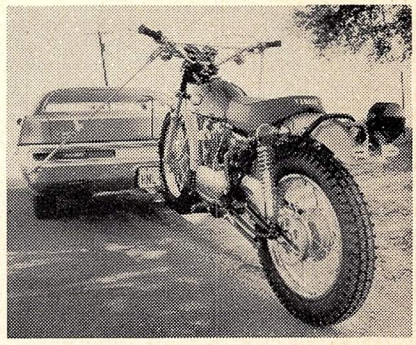

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**$16.95** Per Pair FOB

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| Reg. | Mini | Suzuki |
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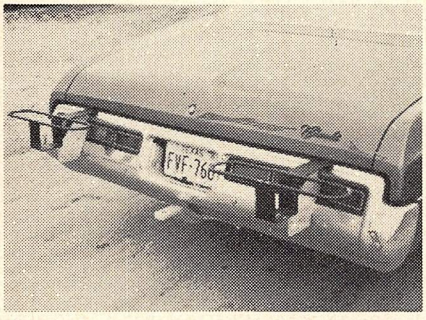
| 4 x 21 | 4 x 10 | RV90J |



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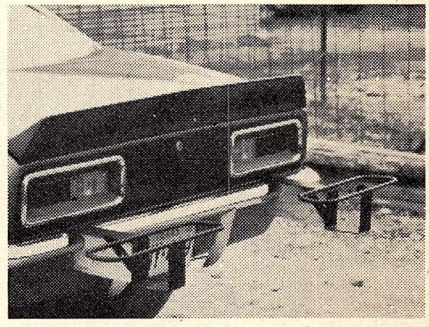

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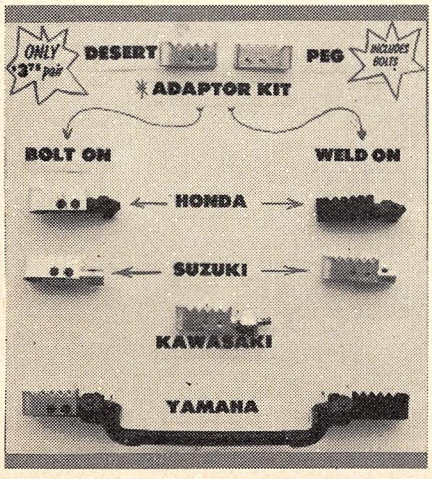


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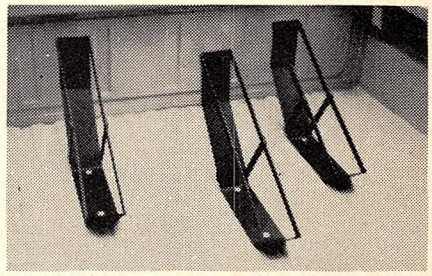

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Handles tires up to 4" x 21"
**$11.95** Plus Frt.

# Nuts & Bolts

tional Enduro. I wish Roger luck in his racing.

Rick Rinestine
Toledo, Ohio

*How about us printing your letter Rick, so you will have told him. Thanks for your time in trying to help another unfortunate.*

Dear Sir:

I own a 1967 Suzuki 120. I want to race this summer but my dad says if I do, I would have to race my 120. So, since I can't buy another bike, I would like any and all information on what I could do to hop my bike up and make it competitive.

In its stock condition it weighs 203 lbs. dry. It has a 48-inch wheelbase and 3.00x17 tires front and back (but I switched to a 3.25x17 in the rear). It also has 11 horsepower.

I would be racing in east and western Washington and it would consist of mainly cross country, hare and hounds, scrambles, and a few poker runs. I am 14 and would be racing in the 14 and under class.

Ted Rude
Renton, Washington

*Just get the clutch out faster and use the brakes less, you'll be competitive. Get a whole bunch of experience under your belt before you start messing with your bike. That way you'll have a better idea of what you'll need to change.*

Dear Sirs:

I have a 1971 Yamaha 175 Enduro which I am in the process of modifying. I would greatly appreciate any help that you could give me. My plans are as follows: The cylinder is being ported, a 26mm carb is replacing the stock 24mm, an expansion chamber is being fitted with a J&R silencer, and I am considering a Webco Hi-Compression head and a Teflon Super Piston. How much change could I expect in the power band? Assuming the last two were omitted, what kind of power changes then? What do you know about Super Pistons? Is cylinder boring required? Would I have to rejet the carb for the expansion chamber? If so, do you know what jet sizes? I realize that I am asking a lot of questions, but this is the first time that I have ever done any modifications of this kind on a bike.

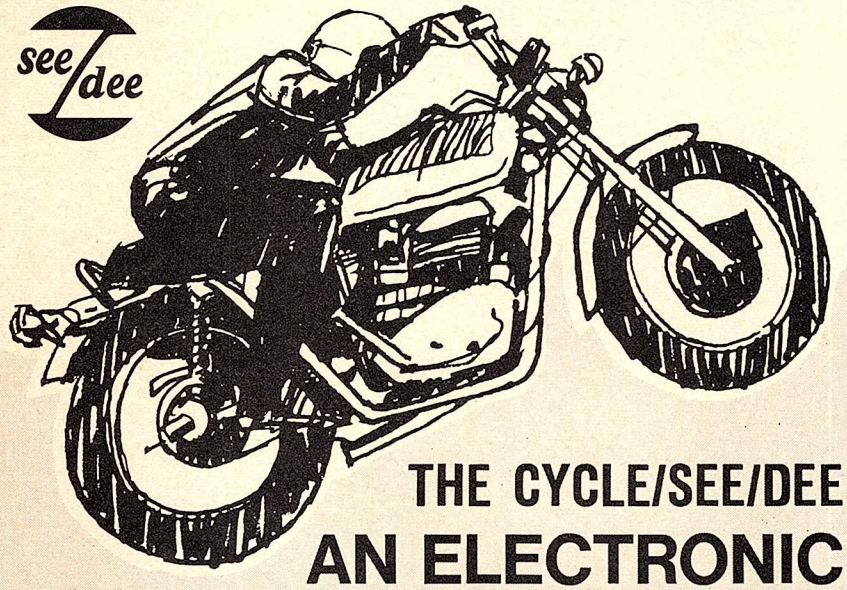
Jeff Ford
Silver Spring, Md.

*With all that conglomeration of unrelated parts it could run just plain awful. You are asking a whole lot of questions, the problem is they cannot be accurately answered unless I try to do the same thing you're trying to do, and I'm not about to.*

Dear Sir:

I have a Kawasaki 100 (Trail Boss). I've been having a great deal of trouble with fouled plugs. In my machine a spark plug lasts about 125 miles which you know is not too overly good. I've had the oil injection system checked and it seems to be okay. I've also

Text continued on page 55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# A quarter of a million bikes ago, the basic Bonneville engine started winning races

# It still is.

When our first famous vertical twin began winning, Gene Romero hadn't even been born. Yet last year Gene wore the AMA's Number 1 plate because that same basic engine—Triumph's dual-carb, 4-stroke OHV Bonneville—helped him thunder to his Grand National Championship.

To hang so tough for so long, an engine just has to be better-designed and better-built. It even looks the way a great engine should.

And it's pulling a great bike. Bonneville offers a choice of four- or five-speed gear box, for greater flexibility. It has a special Through-The-Frame Oil System that obsoletes the oil tank. And a beefed-up pump that flows oil faster to cool cooler.

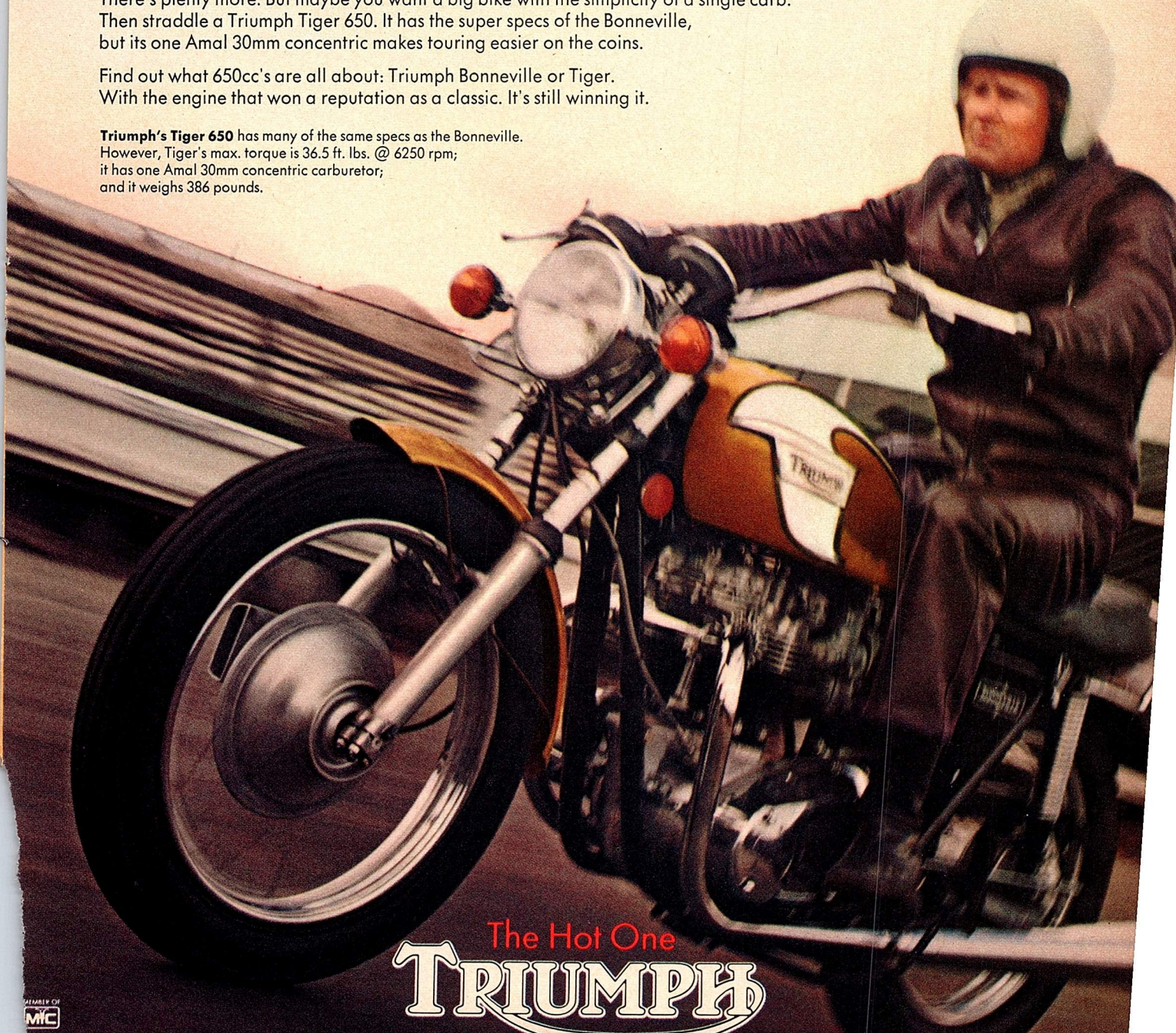
It has aluminum alloy forks—stronger yet lightweight, and they damp 6¾" both ways. Conical alloy hubs brake surer and cooler while they cut unsprung weight. And the double-loop frame is hand-welded for double strength.

There's plenty more. But maybe you want a big bike with the simplicity of a single carb. Then straddle a Triumph Tiger 650. It has the super specs of the Bonneville, but its one Amal 30mm concentric makes touring easier on the coins.

Find out what 650cc's are all about: Triumph Bonneville or Tiger. With the engine that won a reputation as a classic. It's still winning it.

**Triumph's Tiger 650** has many of the same specs as the Bonneville. However, Tiger's max. torque is 36.5 ft. lbs. @ 6250 rpm; it has one Amal 30mm concentric carburetor; and it weighs 386 pounds.

**ENGINE TYPE** OHV–4 stroke
**CYLINDERS** 2
**MAX. TORQUE** 38.5 ft. lbs. @ 6000 rpm
**BORE/STROKE** 71 x 82mm
**COMP. RATIO** 9:1
**TRANSMISSION** 4-Speed gearbox
5-Speed gearbox
**CARBURETOR** 2-Amal 30mm conc.
**FRONT TIRE** Dunlop 3.25 x 19" K70
**REAR TIRE** Dunlop 4.00 x 18" K70
**FRONT BRAKE** 8" DLS
**REAR BRAKE** 7" SLS
**WHEEL BASE** 56"
**GND. CLEAR.** 7"
**DRY WEIGHT** 387 lbs.
**FUEL TANK** 2½ & 3½ gals.
**OIL** 6 pts.



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RIUMPH MOTORCYCLE CORPORATION A DIVISION OF THE BIRMINGHAM SMALL ARMS COMPANY, INC. **WEST** P.O. BOX 275 DUARTE, CALIF. 91010. **EAST** P.O. BOX 6790 BALTIMORE, M

Print

# Carabela is

**celebrating** our 2nd year in the U.S. market after an extensive program of research and development!

**growing** rapidly with the addition of 3 new competition models to our continually growing line!

**distributing** nationally through a network of over 200 authorized dealers which is expanding daily!

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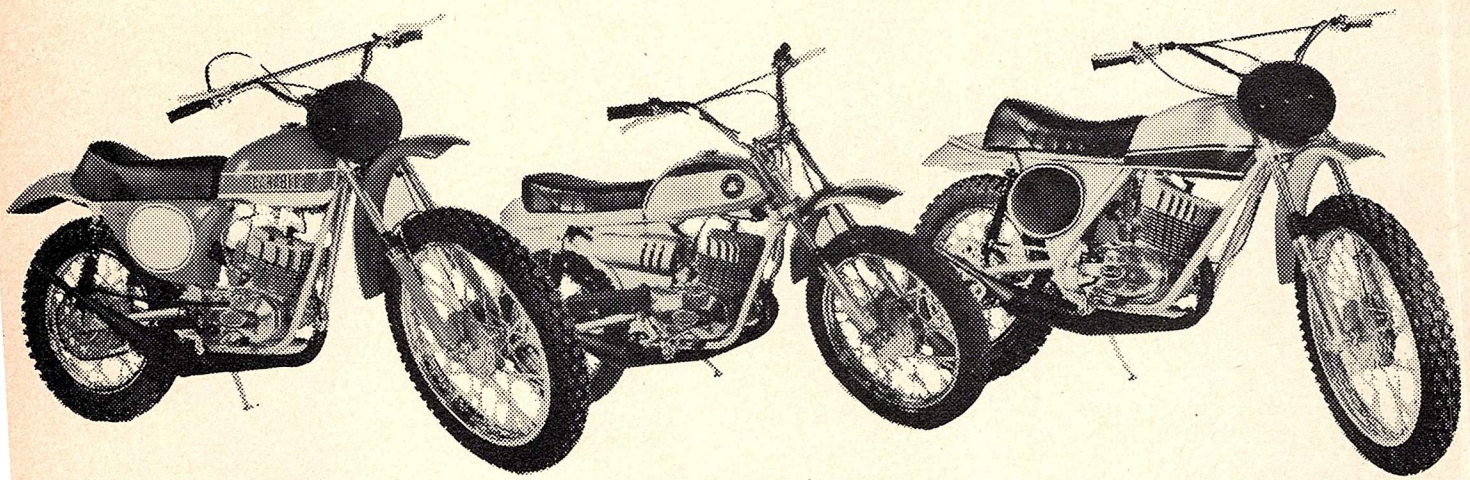
**winning** races in sales and competition everywhere!



**CALIENTE 125 cc MX 5 SPEED**
19 HP 13.5:1 compression 2 stroke engine • Multi-plate wet disc clutch
7½ in. ground clearance
weight 183 lbs.

**COYOTE 100 cc MX 4 SPEED**
12 HP 10:1 compression two stroke engine • Multi-plate wet disc clutch
9½ in. ground clearance
weight 137 lbs.

**CARRERA 200 cc MX 4 SPEED**
25 HP 13.5:1 compression 2 stroke engine • Multi-plate wet disc clutch
8½ in. ground clearance
weight 205 lbs.

**For Dealer or Motorcycle Information Contact:**

Carabela

**Carabela Motorcycle Corporation**
172 Freedom Ave.
Anaheim, Calif. 92801 • (714) 870-5243

# TEST:

## THE KAWASAKI 750 H-2

**It's fast and a fair handler, you have to ride the H-2 to believe it.**

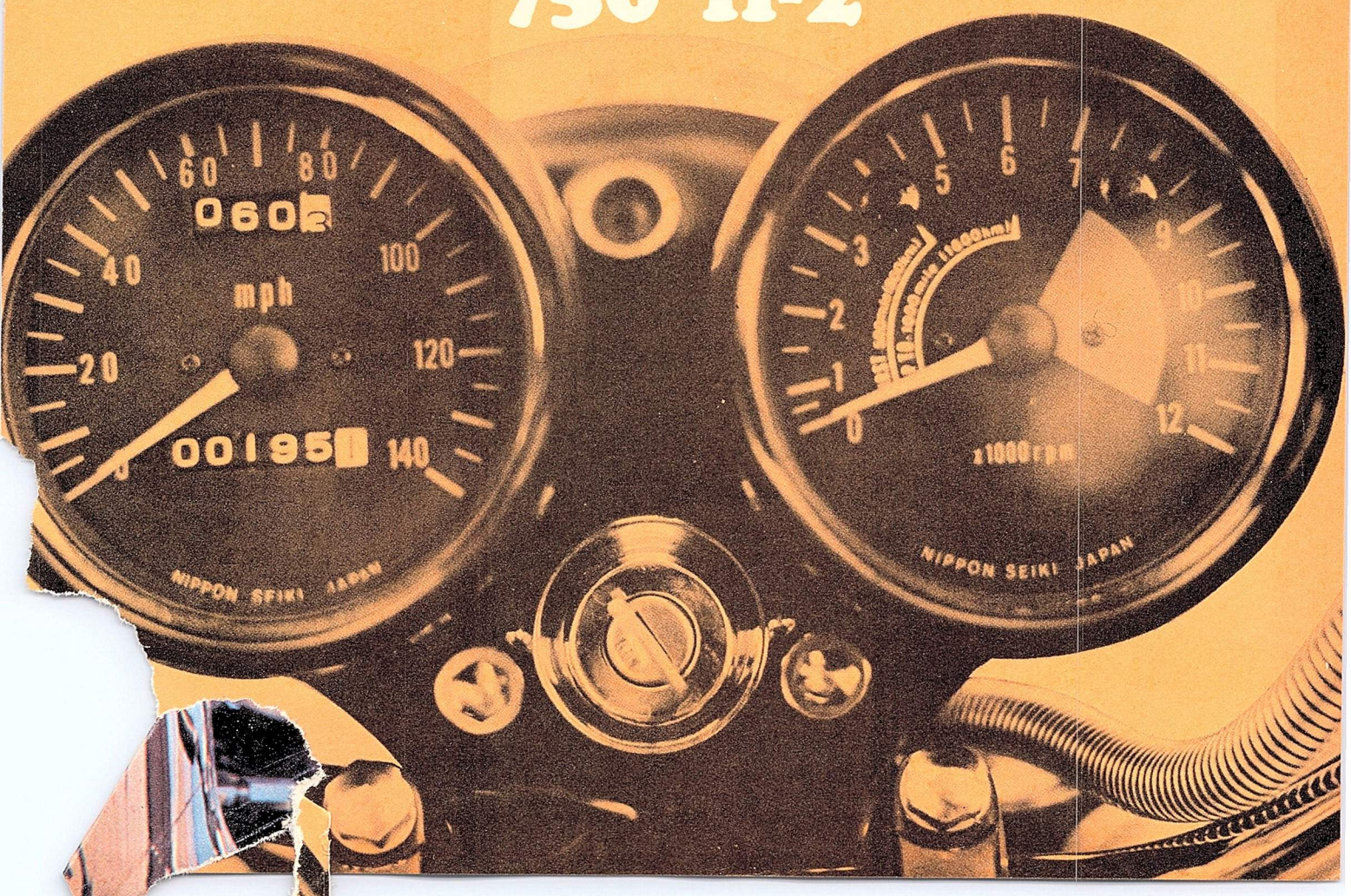
Some time ago one of us journalistic types coined the phrase 'superbike' in referring to the new avalanche of overly fast motorcycles. BSA/Triumph brought in 750cc three-cylinder 4-strokes to give a marketing battle to another English 750, the Norton twin. Shortly thereafter, Honda shoved a 750cc transverse Four at us and every hungry street enthusiast was wanting to know which bike was the fastest. Somehow, there's some kind of status symbol associated with being the quickest from stoplight to stoplight. Usually the guy who gets his clutch out first is the victor, it doesn't much matter which bike he's riding, speaking within the superbike group.

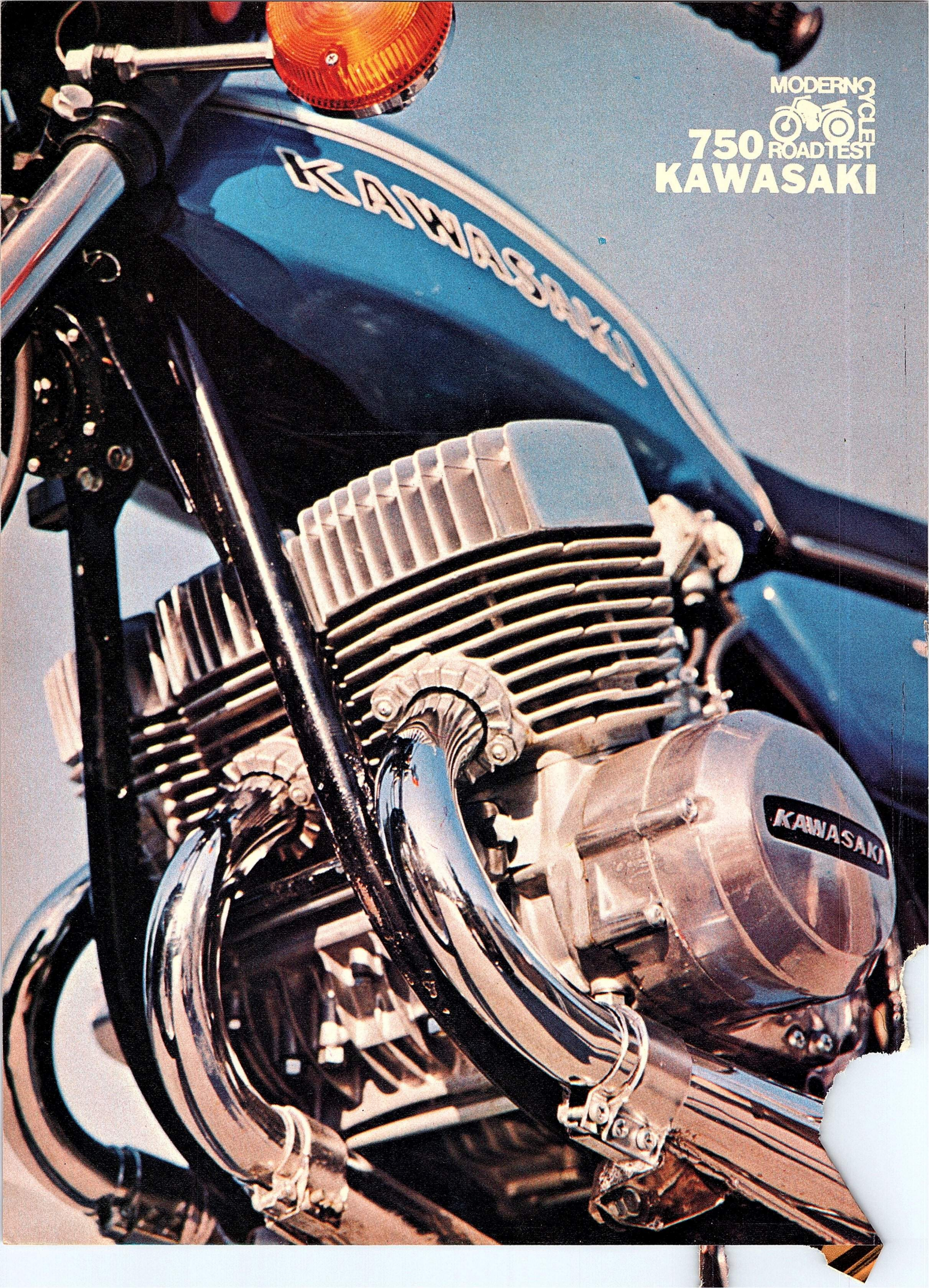
Strange, the fastest accelerator during those times was the 500cc Kawasaki three. Some people referred to its throttle as a trigger and it takes considerable talent to ride the Mach 3 at its maximum. But with all its quickness it still lacked the brute torque required to accelerate at speeds above 80 mph like the pure 750 superbikes. So, Kawasaki entered the superbike market with a completely new motorcycle, the 750 H-2.

With a curb weight of over 450 pounds this one is no lightweight, although it's the lightest of the other 750s. Kawasaki is well aware of all the notice given stoplight street racers and keeps a top quarter-mile sprinter on tour just to remind everybody that Kaws are quick! With street legal production 750 H-2, Tony Nicosia turns the quarter in 11.95 seconds and gets a terminal speed of nearly 115 miles per hour. (Under NHRA rules you can change the handlebars, gearing, and remove the air filter. Jetting of carburetors and re-setting of ignition timing falls into the category of tuning and is also legal.)

We tested one of these jets and decided to put it through its paces. The bike is fast, but only if you want it to be fast. You can motor around in the 2,000 to 3,000 rpm range silently enjoying all that power on tap without the least desire to use it. If you do decide to use this muscle you'd better be prepared to handle a first gear wheelstand up to 40 mph. The H-2 will smoke the devil out of the rear tire in low, and for the brave kids, it's a lot of giggles to ride.

The following is an actual account taken from one of our test rider's experiences. "I was running into a good 40 mph head wind and pulling a slight grade at the same time. The bike was turning about 3-grand in 5th and losing speed. So, I dropped it into 4th, took it up to 5-grand and shifted into 5th. It was running just above 4-thousand rpm and beginning to pull strong, I could hardly hold on with the head wind and all. I shut it off when the speedo was indicating 90 mph and still accelerat-

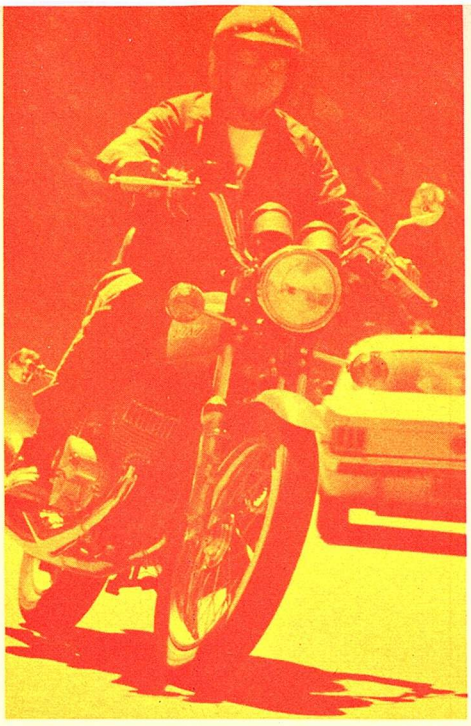



MODERN CYCLE
ROAD TEST
750
KAWASAKI
KAWASAKI

ing." Apparently the 750 begins to get its torque above 4,000 rpm, yet it pulls very strong from 2 to 4 and is fun to ride without winding the beejesus out of it or changing the gears all the time.

In the handling department the H-2 deserves a 'very good.' It leans into the turns without twitching or wanting to straighten up, yet you can pull it up with very little effort. Suspension is something else. The slow lanes of our freeways are a succession of long dips hammered in by the heavy truck traffic that's constantly lumbering along. Under these conditions the front forks move very little. It seems that type of shock load from the road isn't great enough to overcome the drag in the fork bushings, and the handlebars are hopping rather than the forks absorbing the impact and the front wheel moving up and down. Yet, on normal everyday dips and turns the forks worked nicely. Rear suspension is a bit soft if anything as we did squash it out once or twice. Jacked up to its 3rd position with two average people aboard the Kawasaki produced a pretty decent ride.

The forks do come up when you grab a handful of front brake. Brakes are not the sensitive feel type, the kind you can lock up using two fingers and go on your head with. The single 11.65-inch disc on the front requires a firm pull for it to do its job. Likewise, the single leading shoe drum brake on the rear is also fitted with hard lining and takes a bit of extra force to get the wheel to lock up. It seems the more we used the brakes, the warmer they got and the better they worked. Neither squeaked, squealed, or made any other annoying sounds to our delight.

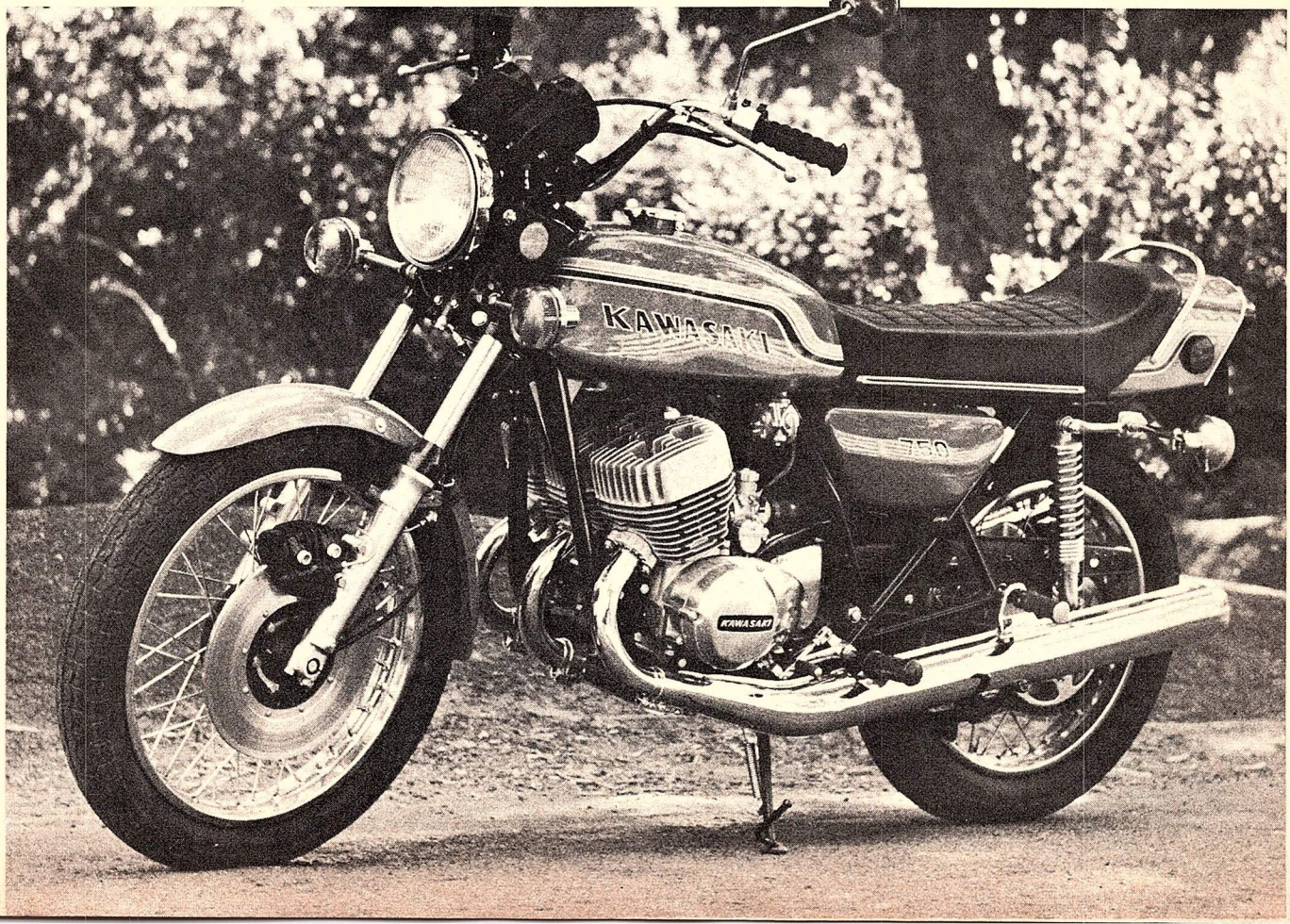


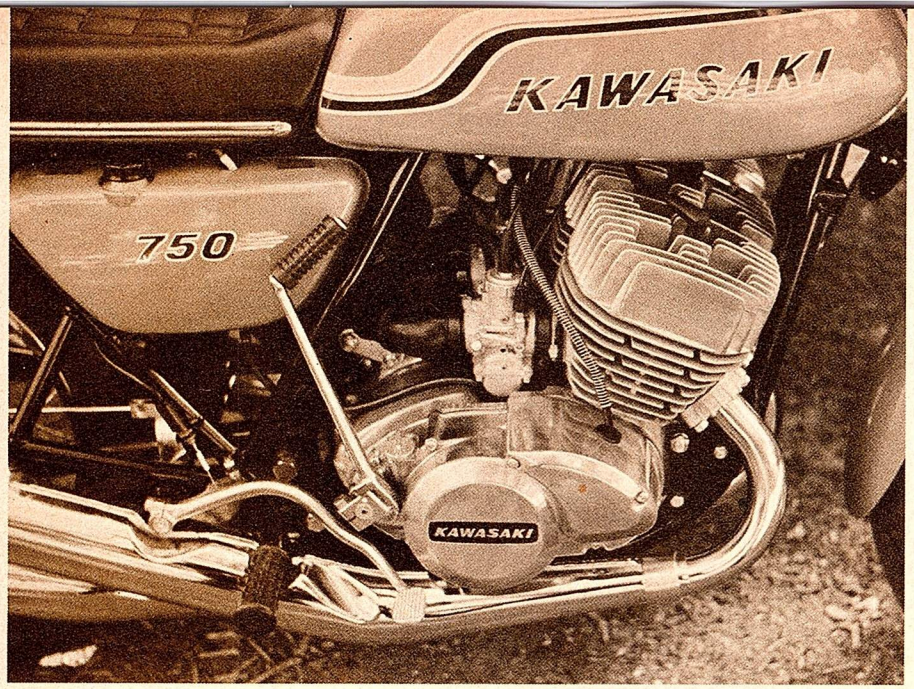
Riding comfort of this motorcycle is something that will take a little explaining. The handlebars are tilted down just a bit. You have to reach for them and they seem a bit far from the location of the footrests (this is especially noticeable if you're short). The long stylish seat is on the firm side, but there's a reason for this. Genuine road racing-type motorbikes have very little padding so the rider can feel what's going on back there. The Kawasaki's seat is firm so you can get that same good feel, but after an hour's riding or so it begins to get a little hard. Our perennial well padded female passenger voiced the same opinion although she liked the pillion footrests and upward cant at the back of the seat.

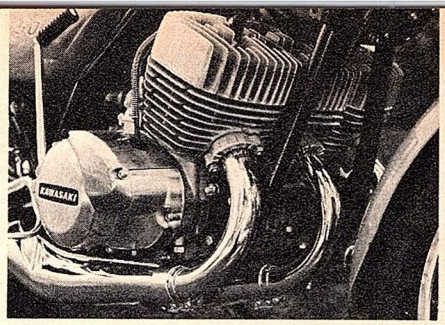
Under the seat in that funny spacelike tail section is a neat compartment that's good for rags, gloves, etc. We actually stored a 35mm SLR camera back there on one of our jaunts. Also under the seat are a whole bunch of electrics and a 12-volt battery.

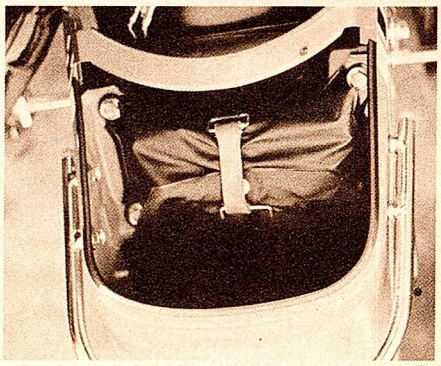
Kawasaki has built a reputation for exotic ignition systems in their motorcycles. The H-2 has three separate Capitor Discharge Ignition systems, one for each cylinder. The unit does not have any contact breakers but uses the excitement of a piece of metal passing across a magnetic field to trigger the spark. Once properly set it won't ever change.

The H-2's frame seems to be patterned after Norton's famous featherbed with no less than 5 frame tubes

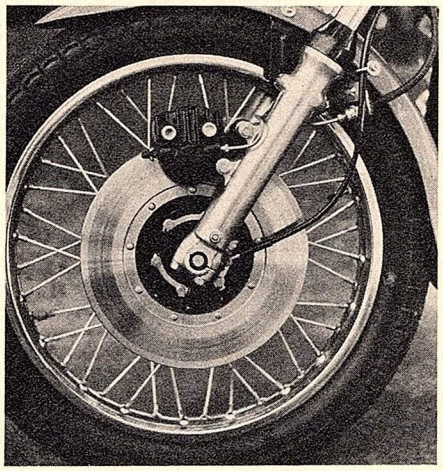




welded to the steering head piece. The long swing arm is a rigid "A" section and pivots on bronze bushings, this combination is mostly responsible for the 750's good cornering habits. A 3-cylinder piston port 2-cycle engine is cradled in the chassis and mounts rigidly in several places. The machine doesn't vibrate until it's turning in the 6,000 rpm range and that which does get through to the rider is hardly noticeable. Much of this is due to the well balanced 3-cylinder engine. Being a 2-stroke, its power impulses are much the same as a 6-cylinder 4-stroke.



The engine spins on roller and ball bearings with a straight cut pinion gear driving a clutch. The wet clutch has 13 separate plates and uses 5 springs to apply pressure. The pull required to release the clutch at the handlebar is light, if anything. The H-2's five-speed gearbox is of the dog engagement-type and uses 3 shifting forks on a drum to program the gears. Neutral is at the very bottom. Normally, finding neutral on a motorcycle is a chore, especially if you're waiting at a stoplight. On the H-2 all you do is go past first gear into neutral. Going for the next five gears is all up. This type of gear selector takes some getting used to but is convenient in the long run, especially with the H-2 where you have to find neutral before you can start it.

Although the 750 starts remarkably well, you have to do it with a kickstart lever. Not only that, but you've got to move the right hand footrest out of the way before you can kick it through. Another annoyance is the rattling throttle—the throttle spool rattles in is alloy housing. We did like the speedo and tach, they're both sitting right up there where you can easily read 'em and they don't shake or vibrate while you're riding. The trip odometer is handy, too. At 30-plus miles per gallon it's used to determine when you should look for another gas station before disaster strikes. The H-2 does hold nearly one U.S. gallon in reserve which isn't a bad idea.

A side stand is a very handy item, the H-2's is easy to get to with your left toe while sitting on the bike. But the centerstand is something else. Even grabbing the handle and using the weight of your body on the centerstand, it takes a healthy heave to get the thing up there. The small oriental men who built it clearly didn't intend on using this prop themselves. Another gizmo that makes us all curious is the H-2's strange fuel valve. It has three positions but doesn't shut off. In fact, the prime position leaves it all on; the "on" position won't flow fuel unless its urged by a vacancy in the carburetors, and the reserve position does the same except with the remaining fuel in the tank. It doesn't turn the fuel off.

Another idea is the chain oiler. Although not automatic, diligent use of this little item will help the rear chain live a whole lot longer. Superbikes are super hard on rear chains. Ever notice all the new chain lubes on the market lately? Superbikes can also be pretty rough on rear tires as was the problem at Daytona.

Despite their enthusiastic consumption of fuel, chains, and tires, superbikes are here to stay. They're more than just fun to ride, they're exciting. For those hardy lads who are eager to join the stoplight to stoplight Grand Prix, we suggest the Kawasaki 750 H-2! ●

# MAKE KAWASAKI
# MODEL 750 H-2
# PRICE AS TESTED $1,386.00
# MAXIMUM SPEED AS GEARED 120 mph
# WEIGHT 462 lbs. WET: Fuel Tank 50% Full

Distributor ..... KAWASAKI MOTOR CORP.
1062 McGaw Ave. ..... Santa Ana, Calif. 92711

## ENGINE

| | |
|---|---|
| Engine Type | 2-STROKE, TRIPLE |
| Bore | 71mm |
| Stroke | 63mm |
| Displacement | 748cc |
| Compression Ratio | 7.0:1 (CORRECTED) |
| B.H.P. at R.P.M. | 74 AT 6,800 |
| Carburetor | (3) 30mm MIKUNI |
| Ignition | MAGNETO C.D.I. |
| Starting System | FOLDING KICK |
| Lubricating System | OIL INJECTION |

## FUEL AND OIL

| | |
|---|---|
| Oil Capacity | 2.1 QUARTS |
| Oil Recommended | 2-STROKE OIL |
| Fuel Capacity | 4.5 GALLONS |
| Fuel Recommended | PREMIUM |
| Approximate mpg | 31 |

## FILTERING SYSTEMS

| | |
|---|---|
| Air | TREATED PAPER |
| Oil | SCREEN |
| Fuel | SCREEN |

## FRAME

| | |
|---|---|
| Frame Type | DOUBLE LOOP |
| Weight Distribution | FRONT: 44%, REAR: 56% |
| Wheelbase | 56 TO 57 INCHES |
| Ground Clearance | 7 INCHES |
| Peg Height | 13 INCHES |
| Seat Height | 32 INCHES |
| Handlebar Width | 31.5 INCHES |

## SUSPENSION-TYPE

| | |
|---|---|
| Front | TELESCOPIC |
| Rear | SWING ARM |

## SUSPENSION-TRAVEL

| | |
|---|---|
| Front | 6 INCHES |
| Rear | 3 INCHES |

## DRIVE TRAIN

| | |
|---|---|
| Clutch Type | MULTI-DISC, WET |
| Primary Drive | GEARS (1.88:1) |
| Countershaft Sprocket | 15 TEETH |
| Final Sprocket | 47 TEETH |
| Final Drive | SINGLE ROW CHAIN (3.13:1) |

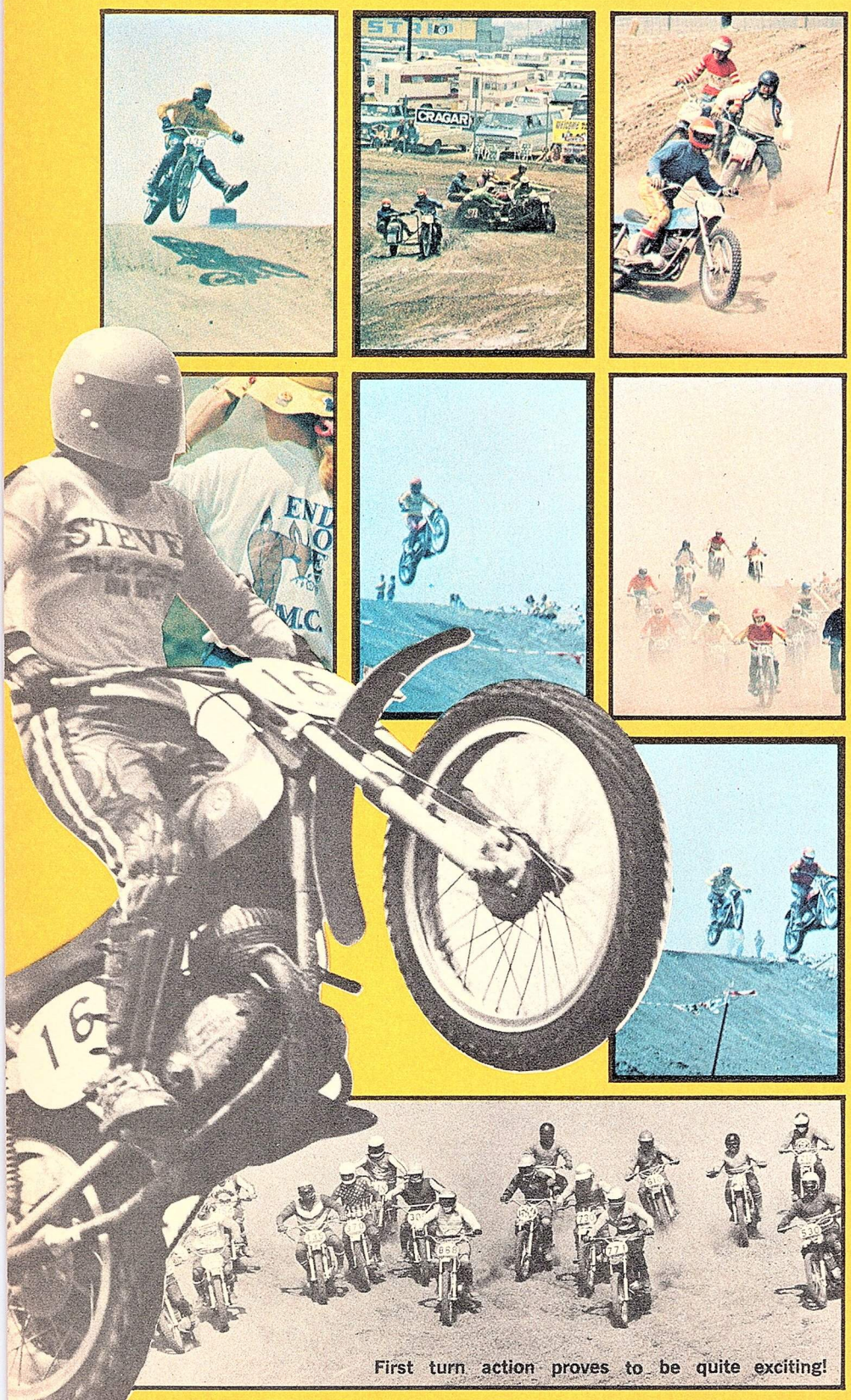
| Gear Ratios | Internal | Overall |
|---|---|---|
| 1st | 4.76:1 | 27.98 |
| 2nd | 2.17:1 | 12.75 |
| 3rd | 1.47:1 | 8.64 |
| 4th | 0.92:1 | 5.40 |
| 5th | 0.81:1 | 4.76 |

## TIRES AND WHEELS

| | |
|---|---|
| Front | 3.25x19 YOKOHAMA "S" |
| Rear | 4.00x18 YOKOHAMA "S" |

## IMPRESSIONS

| | Poor | Good | Excellent |
|---|---|---|---|
| Throttle Response | | | ● |
| Acceleration | | | ● |
| Power Band | | | ● |
| Starting | | | ● |
| Engine Noise | | ● | |
| Muffling | | | 82 Db(A) |
| Vibration | | ● | |
| Handling | | ● | |
| Choice of Tires | | ● | |
| Suspension | | ● | |
| Rider Comfort | | ● | |
| Transmission | | ● | |
| Instrumentation | | | ● |
| Lighting | | | ● |
| Toolkit | | ● | |
| Paint and Chrome | | ● | |
| Styling | | | ● |
| Mileage | ● | | |
| Braking | | ● | |




First turn action proves to be quite exciting!

# END DOES M.C.

## MOTO CROSS PICTORIAL

## A MOTO CROSS AT A DRAG STRIP? ONLY THE LADIES KNOW HOW

It seems most good things happen in Southern California. Whether it be technical advances, spiffy choppers, or moto cross races put on by the weaker sex. The End Does M.C. is a bonified AMA District 37 competition motorcycle club that has a roster of 20 girl-types, no guys.

They put together a moto cross and being girls, came up with a few ideas new to weekend racing, and did a good job of it, too. A moto cross site adjacent to Lions Drag Strip in Wilmington was lengthened to over a mile per lap and bladed to a 30-foot width. The wide track especially made the Sidehackers smile because passing wouldn't be such a problem. Jumps and tight turns were included to make up an interesting course. Starting gates are now pretty plentiful in the area as are a host of eager moto cross racers. The End Does drew over 200 of 'em.

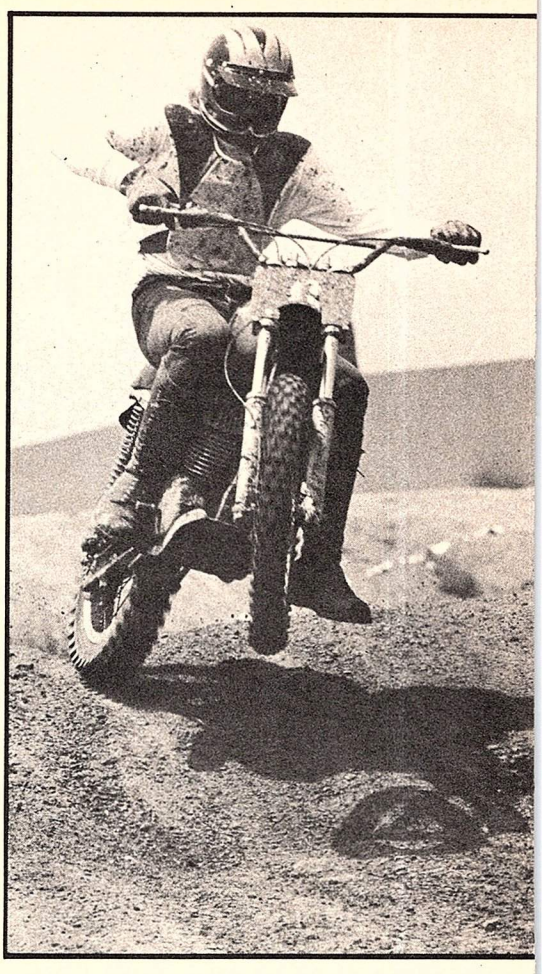
Other than the usual motos of bikes and riders separated into their respective Novice, Junior or Expert, and 125, 250, and Open, the girls did come up with a cute "get it all together" race at the end of the day that had everyone on their toes. All the race winners

Jim MacDonald really showed the troops where it's at in the 125 Junior/Expert race.

CZ mounted Mark Hovater takes the checkered flag not knowing that he had garnered the Overall Performance Award for the day. Riders were judged during the day's racing and the winner received a set of Crager headers and Hercules leathers.

Denny McFarland and his Husky could have taken a clean sweep in the Open Novice class except for a course cutting boo-boo in the last moto. He placed 3rd overall and displayed excellent form.

Cherry Stockton lends a helping hand. Girl racers aren't all that bad.



of the day were quietly timed during their performance. The last race pitted these individuals against each other on a handicap basis for six laps.

Janene Pennington (fastest girl), on a 125 Bul, was flagged off first 55 seconds ahead of the last starter with 12 riders going in-between. Janene led it for 2 laps to the dismay of a whole bunch of men-type onlookers. Lap three Dan Waller, a 125 Novice who started second, got around Janene, but has was nailed the next lap by Fred Joehnck on another 125 Bul. Fred held it to the end with a fast closing field of 250s and 360s about to gobble him up. At the flag you could throw a blanket over the first 6 riders, that Pennington girl was seventh.

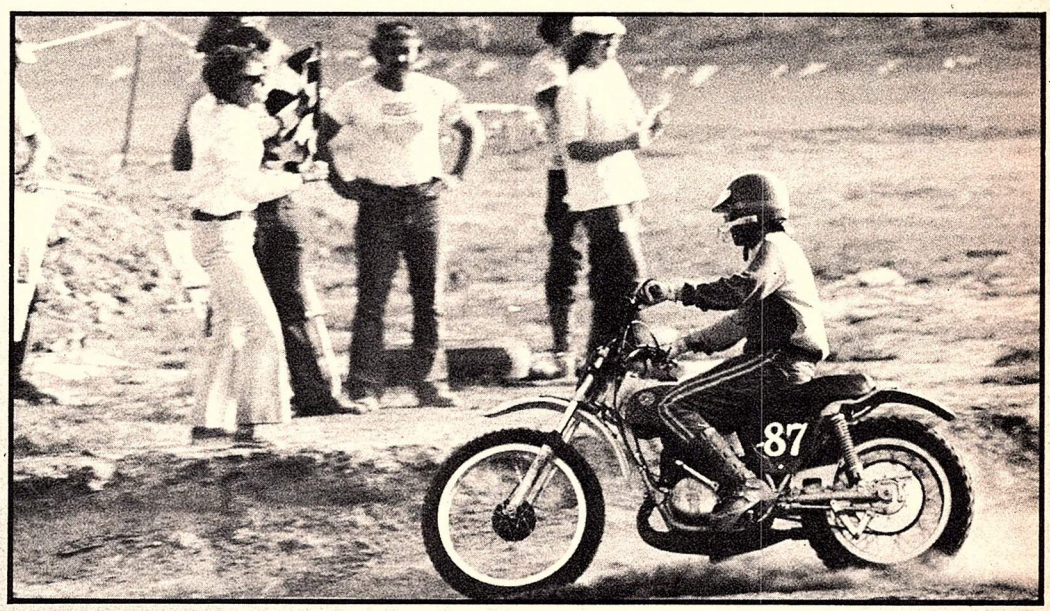
The End Does collected $3,000 worth of merchandise to give away plus some pretty spiffy Valvoline class winner jackets. Fred Joehnck, a 125 Junior, left with a smile and a van full of goodies. Besides winning the class awards, Fred garnered four Rocket mag-type wheels, a pair of Full Bore moto cross boots, a sterling silver cup from Sport of Wheels, 4 quarts of Valvaline oil, and a Preston Petty fender.

An Overall Performance Award was earned by young Mark Hovater, a 250 Junior on a CZ. Mark's biggest prizes were a set of Cragar headers and a pair of Hercules leathers in addition to his class awards.

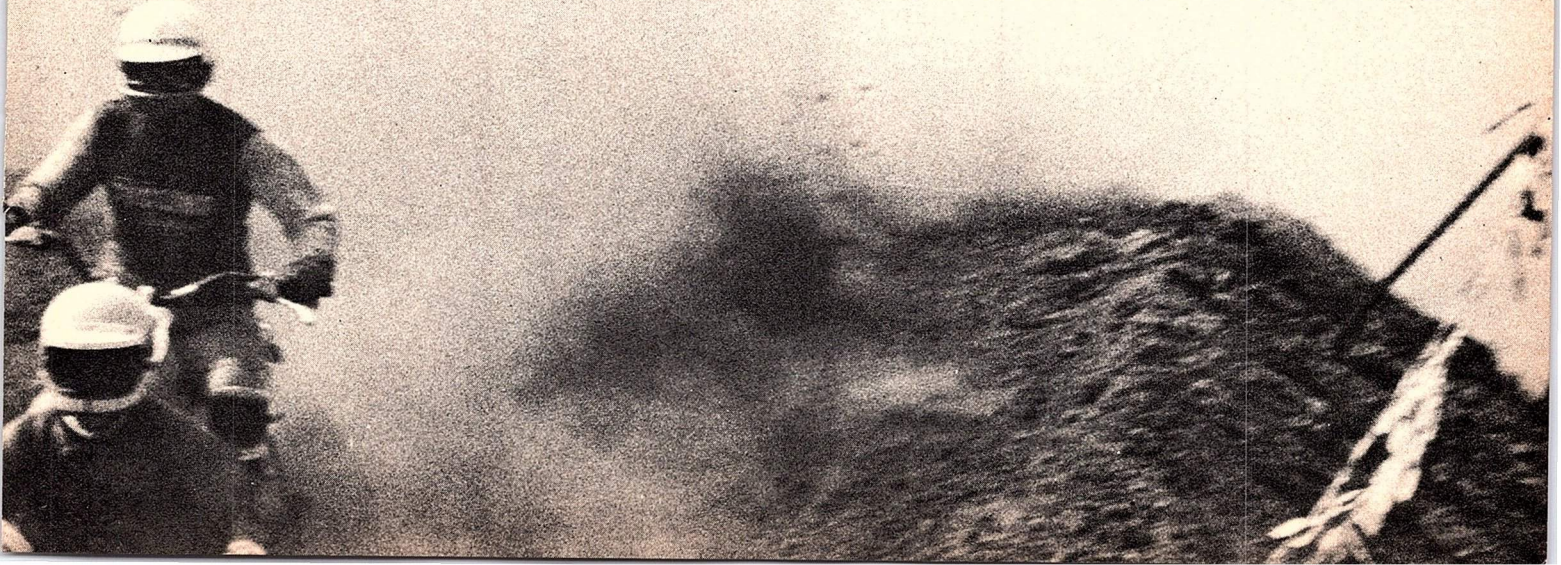
Things are looking a lot better at the local moto cross races nowadays!

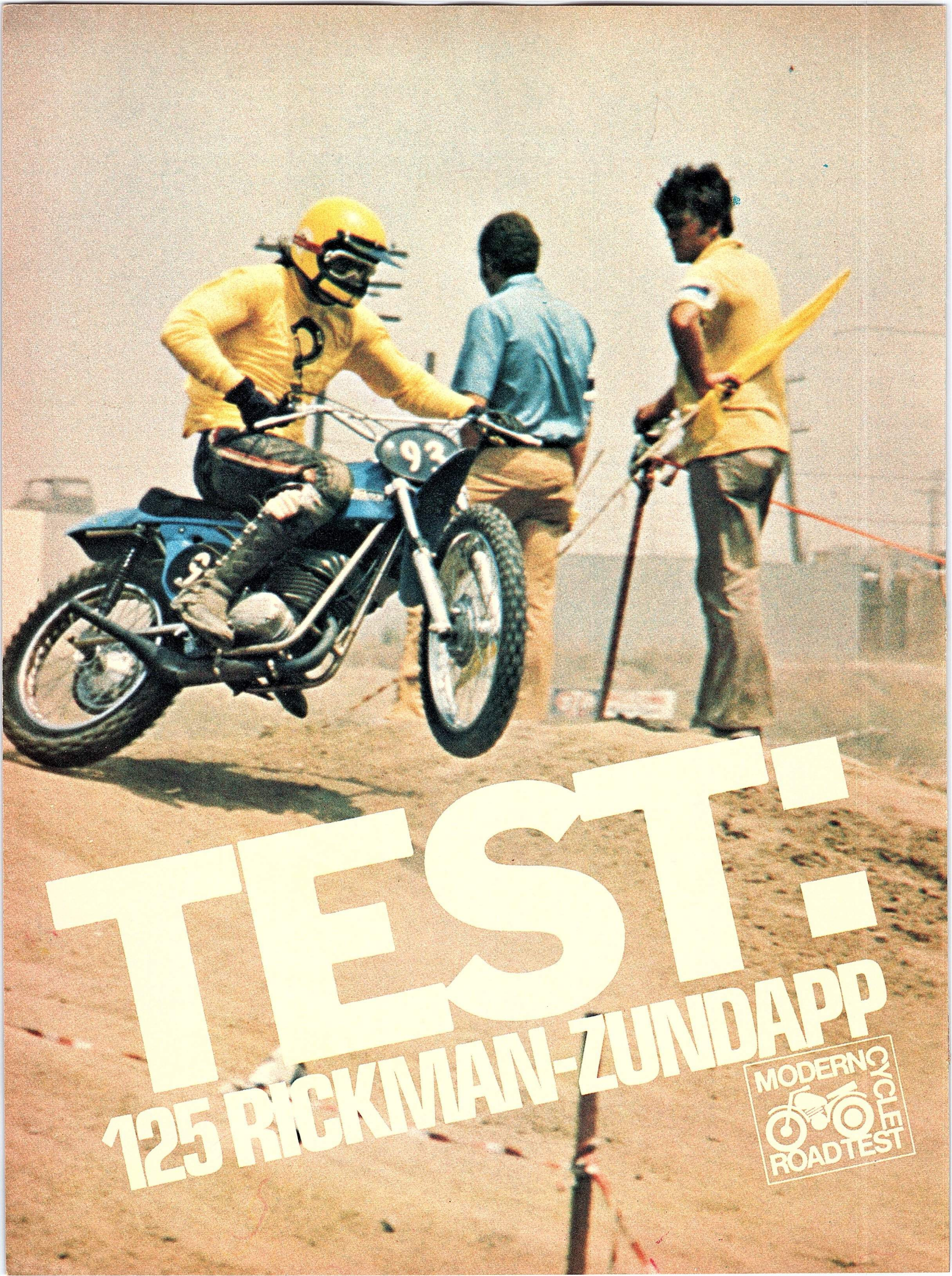
**Dan Waller gets by Janene Pennington in the special Top Eliminator race at the end of the day.**

**Fred Joehrick receives the checkered from Diane Connolly and later got a van full of goodies.**




**The riders claimed that they would rather have the dust than the mud, so this is the way it was in the last set of motos.**




TEST:
125 RICKMAN-ZUNDAPP
MODERN CYCLE
ROADTEST

# The Second Time Around is Always Better.

It wasn't too long ago, the March issue of *Modern Cycle* in fact, we did a test on the 125cc Rickman-Zundapp moto-crosser. Usually, we wouldn't come back to this motorcycle for a long time but a whole lot of changes have occurred (including the U.S. importer/distributor). So here we are with a totally improved version of an already well conceived racer.

BSA, the importer, prefers to call their latest one the "large fin version." One look at the huge head and cylinder and the reason is obvious, it has at least twice the cooling area as the old engine. The cylinder head is of the radial finned or sunburst configuration, the finning on the cylinder, rather than being perpendicular to the centerline of the bore as in most engines, is more of a horizontal nature. The top three fins are progressively shorter because of the angle in which the cylinder head intersects. The remainder run the full length of the cylinder where cooling is most needed, between the exhaust port and the top of the cylinder. Nothing else looks like these new Zundapps.

The cradle dimensions of the chassis have not been changed from the small finned engine so they actually had to machine portions of the head and cylinder finning in order to get the engine to fit. They probably used a milling machine plus a shoe horn to assemble it.

The engine does put out more horsepower. The large fin model is rated at 15 DIN (that's those big German horses) horsepower at 7,500 revolutions per minute. The early Rickman-Zundapps were 12.5 DIN or 13 SAE at 6,500 rpm. From outward appearances the only change has been an increase in carburetor size from 24 to 26mm, in addition to the larger finning area.

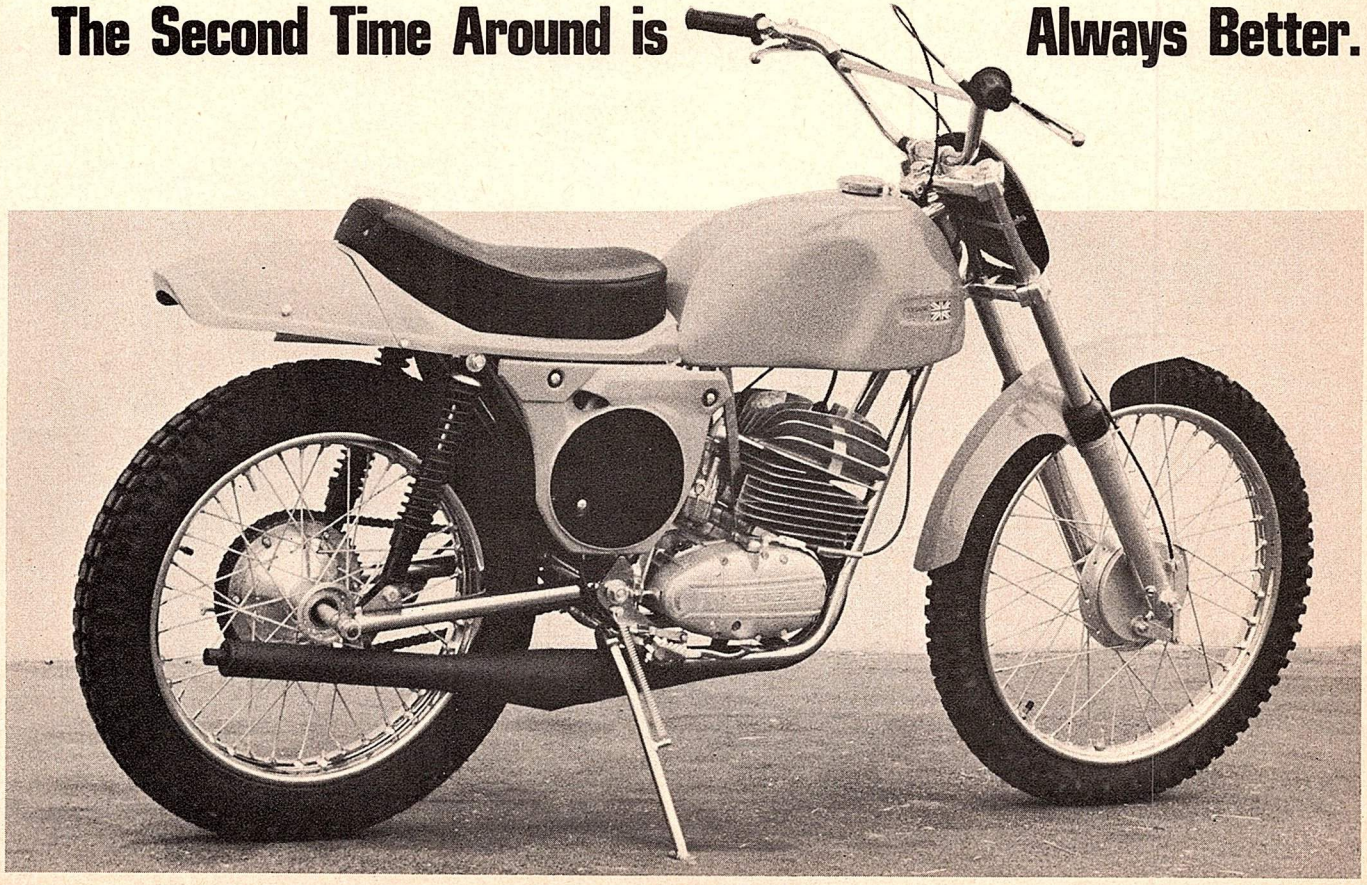
The rest of the machine is much the same. The left side number plate panel still has bulges for an upswept exhaust pipe even though the exhaust system goes underneath. An air filter is behind the right hand panel. To look at the bike you wouldn't know it now carries an all-steel gas tank. Because of ACU rulings (the British competition motorcycle governing body), fiberglass fuel tanks are no longer allowed. The lines and color are such a perfect match to the old ones you just can't tell them apart at first glance.

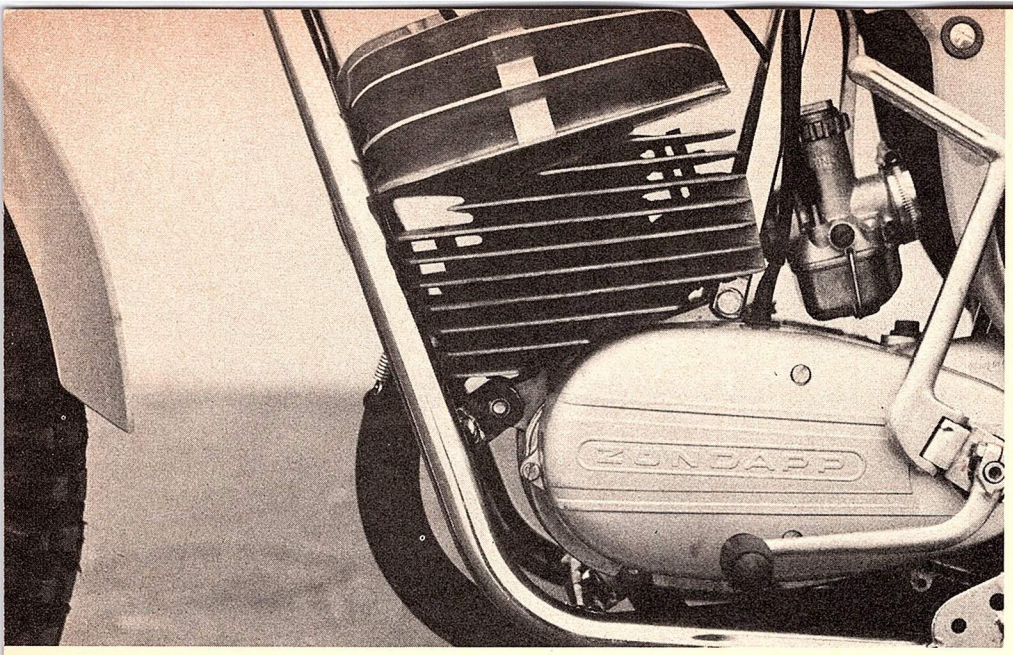
One shortcoming of the early Rickman 125 moto-crosser that didn't show up in our tests has to do with the head crown bearings. They used to fit cups, cones, and loose balls for the forks to fasten to the frame, and after several more hours of pounding that we put on the machine they would loosen up. In fact, keeping these bearings properly adjusted was one of the major maintenance problems with the early 125 Rickmans. But no more!

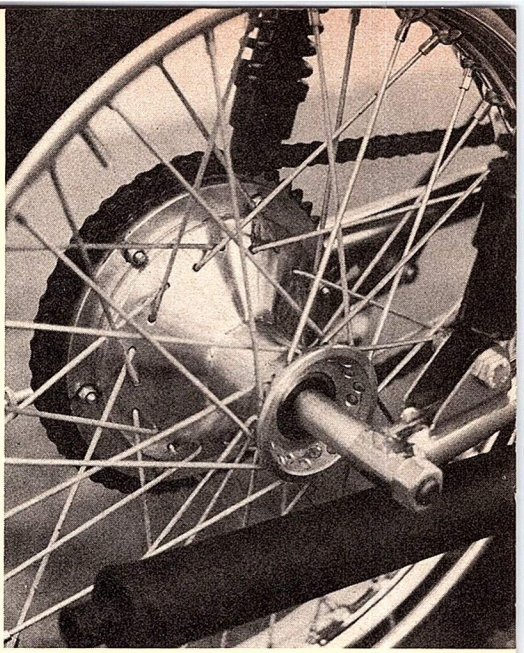
A much larger diameter tube is used for the frame's head piece. Fitted in this are a pair of Timken tapered bearings as is common practice with all the Rickman chassis. Tapered roller bearings are designed to take the type of loads a set of forks will transmit to the frame. It's just a better way to do it, a little more costly maybe, but better.

Ceriani forks and shocks are no longer fitted either. Girlings with non-progressive springs, probably 78-pound ratings, are standard on the rear. The medium-weight Ceriani forks have been discarded for a pair of full size Betors. These Betor forks offer longer travel and a better controlled ride. Like most Betor forks the seals were beginning to go before we were through with the bike. (A certain Honda fork seal cures this problem rather permanently).

These Betor forks slip into a pair of high density aluminum triple clamps of the same make. Both pieces are precision machined to clamp around the fork stanchion tubes using eight Allen screws in four places to eliminate fork twist. Unsprung weight is kept to a bare minimum by using alumnium sliders without bosses, brackets, and such. Rickman's beautiful little conical front hub is one of the lightest in the industry, this also helps. A fiberglass front fender is hose-clamped to the sliders for a final touch of lightweight ingenuity and function.





# RICKMAN 125

MODERN CYCLE ROADTEST

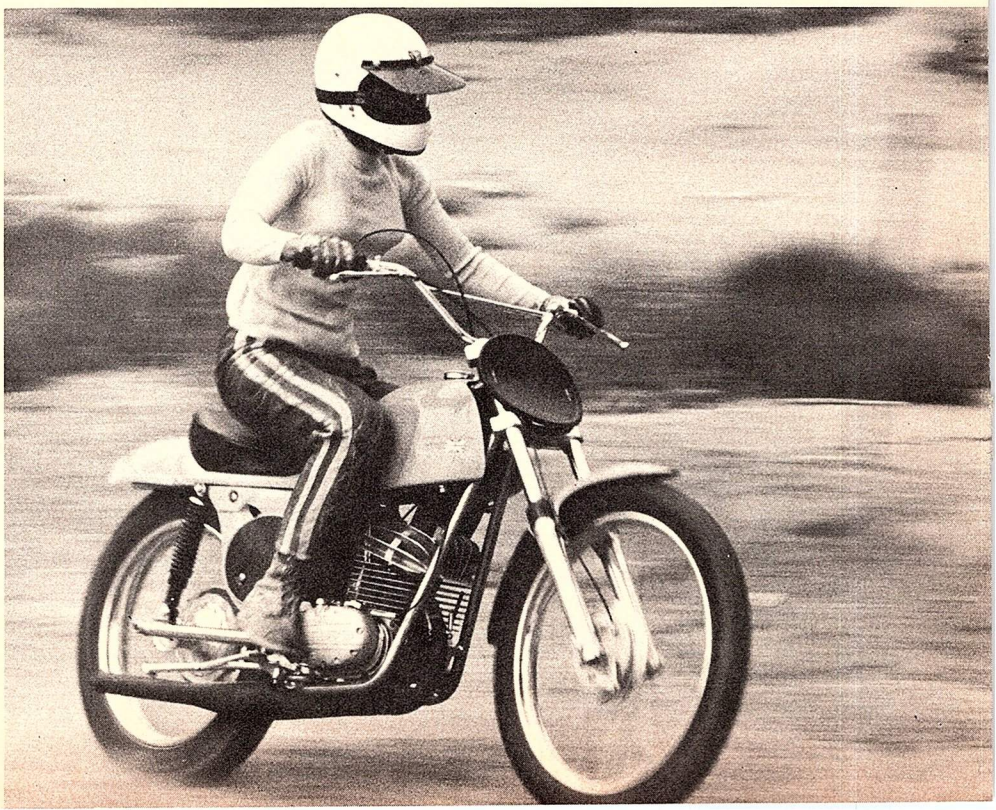
It seems high-mounted front fenders are Vogue with dirt racing motorcycles. The argument is they won't clog up with mud and stop the front wheel. A properly mounted close to the tire front fender won't clog with most mud and is better for some other reasons, too. With the fender next to the tire there is more air space between it and the cylinder. Also, the closer it is to the tire the more control it has over what the tire is trying to throw off, like water and such. The Rickman could use a mud flap to eliminate mud from being thrown up into the cylinder and plugging the cooling fins.

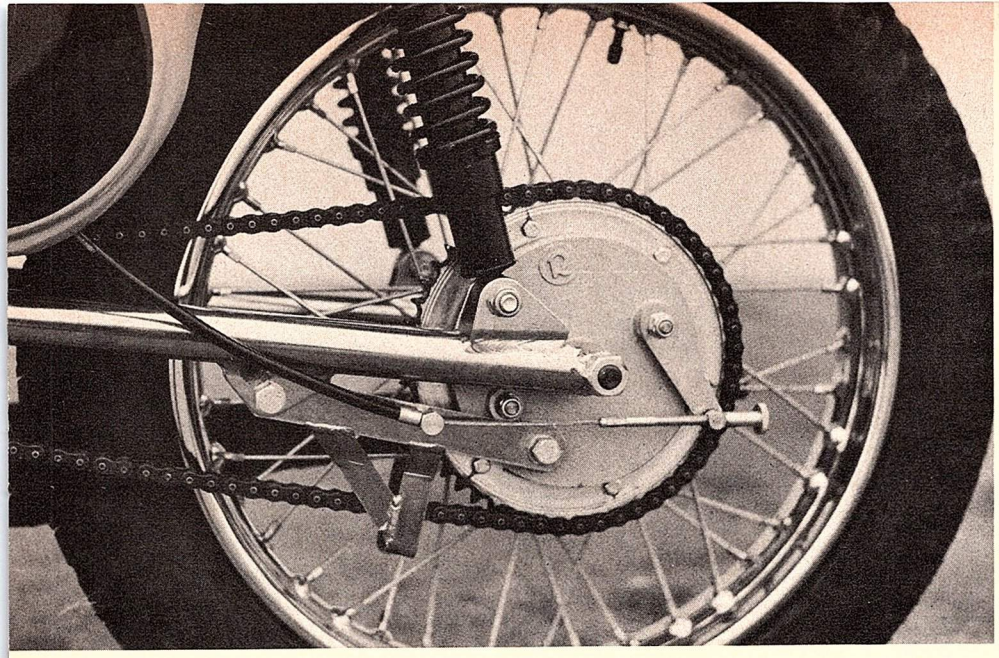
A high-mounted fender, if properly installed to keep mud from getting on the engine, will also block the much-needed air stream from doing its job on the cooling fins. Mounted under the triple clamps it becomes unsprung weight which is good, but is also weight up high which is not so good. And in the event of a crash nothing is so vulnerable as that up-mounted fender. In short, we hope they leave the fenders right where they are.

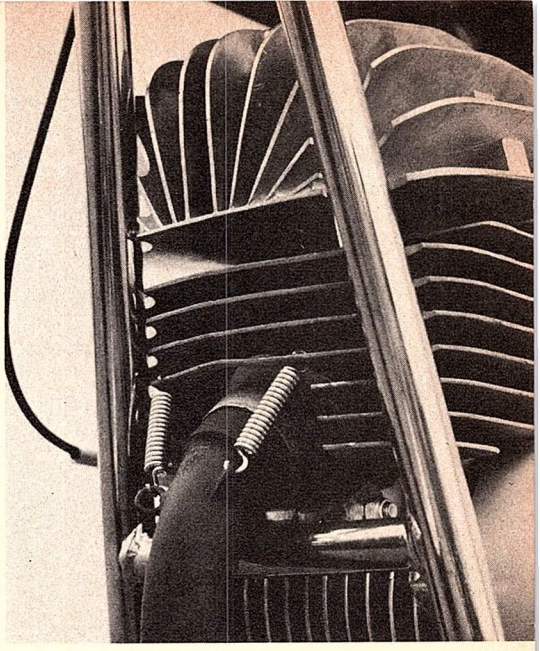
The old Rickman moto cross we tested had cross country handlebars and the new one has 'em, too. Despite our objections to hanging this type of bar on a moto cross machine, they do feel nice sitting on the bike while in the showroom; someone over "there" thinks they're just right. It's very difficult to get your weight over the front tire with cross country bars attached. You need a lower flat bar to properly push it around a moto cross course and many racers simply bolt on another set. We think this should be done at the factory.

The bike does have all its levers and controls in the right places. Footrests to seat locations are good and the distance to the upper triple clamp is proper, too. The Rickman is narrow with nothing protruding or interfering with your riding style. For a motocrosser the 1.8-gallon fuel tank is a little much, it should be about a gallon. Glass work is all very well finished with the blue color impregnated in. The air filter cover is held on with three screws and a paper element is inside.

Rickman has spent a lot of time designing these air filter systems so







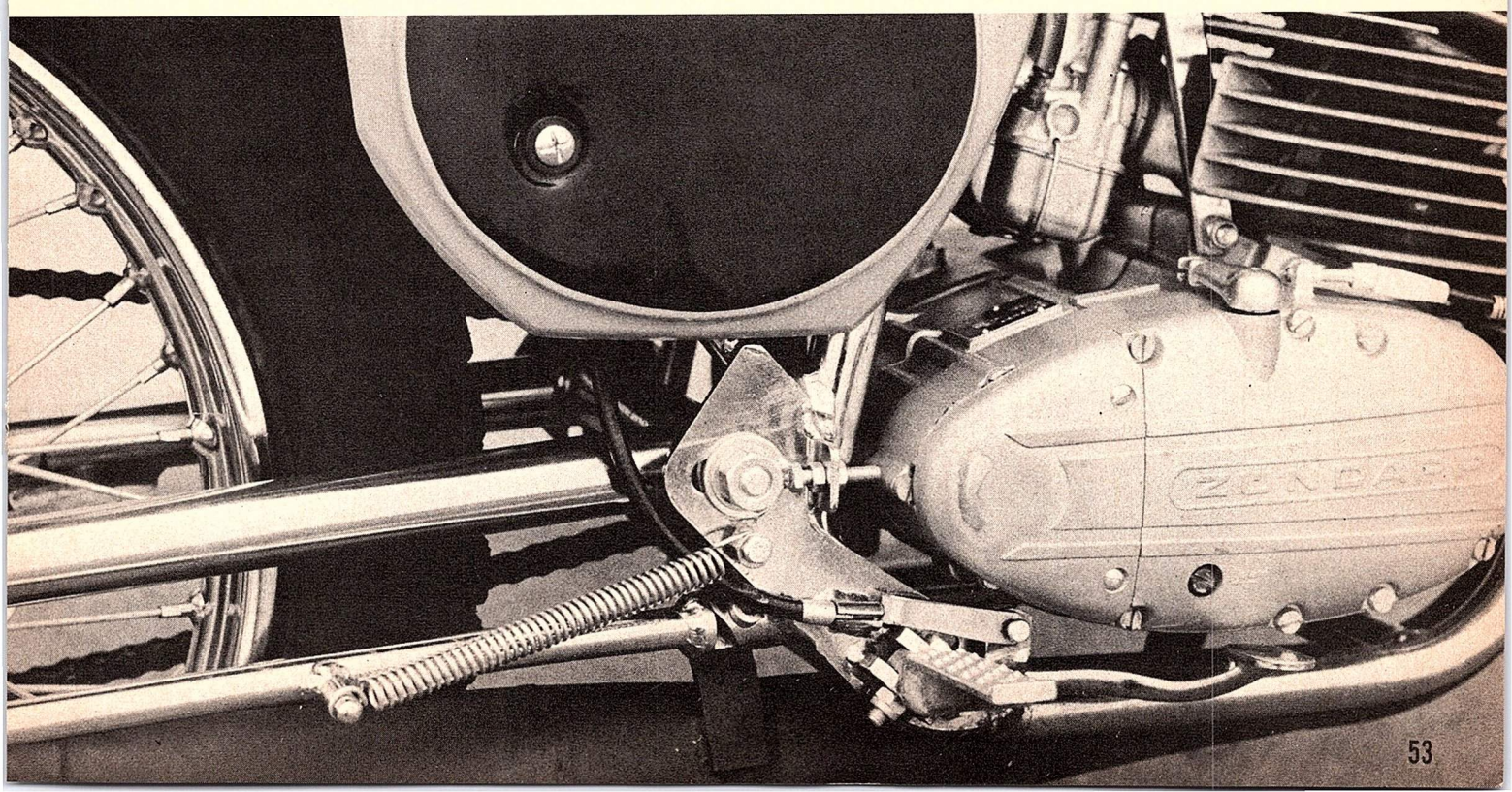
they'll do a proper job. This one gets its air from behind your right leg and dumps it into a large still air cavity. There is another air chamber down stream of the air filter element, this is where the carburetor air inlet hose attaches.

They did digress in one area with the new 125. The early ones came with Megro control levers, the kind that retail for $12.00 a pair. Now the bikes are fitted with Amal all-steel levers that we have come to both love and hate through the years. We love 'em because they work, and we hate 'em when you fall off and one of the two holding screws breaks.

These Zundapp engines don't break, they used to miss shifts a lot, though. Zundapp changes gears by pulling or pushing a notched rod down the center of the transmission mainshaft. The rod is known as the selector rod and, when properly placed, would force four steel balls into the inside diameter of a given gear engaging that set of gears. This system is widely used throughout the industry but has its drawbacks. The selector rod is heavy and making a quick shift will set it in motion usually beyond the point where it is supposed to stop. Another neutral. The new selector rods are reground at the detents and the old problem doesn't exist anymore. But it takes a lot of movement of the shift lever to change gears, still.

In compliance with MIC regulations the Rickman has a small glass-packed muffler surrounding the stinger. That sharp ear-splitting noise is gone, but the bike is still no Sneaky Pete. Engine performance is excellent, it is not cranky, does not tend to load up, and is very strong. During our test we had the opportunity to run it against one of the old 15 DIN horsepower models and the new one had more mid-range power. The new chassis with its improved suspension handles much better, although none of the basic geometry has been changed. Oh yes, the side stand is now on the other side.

As an out of the box 125cc class racer this Rickman-Zundapp is a good one. There's the Pursang and soon the Husky, but both of them are strictly for moto cross. The Rickmans, with their larger fuel supply and flexible engine, are seen in the deserts and mountains, too. So, it's a single purpose bike that serves more than just a single purpose. This new large fin Rickman-Zundapp is a vast improvement over the older model—we're glad we took a second look at it! ●



# MAKE RICKMAN-ZUNDAPP
# MODEL 125cc MX Large Fin
# PRICE AS TESTED $860.00
# MAXIMUM SPEED AS GEARED 60 mph
# WEIGHT 205 lbs. WET: Fuel Tank Full

Distributor ..... BSA MOTORCYCLE CORP.
P.O. Box 337 ..... Duarte, Calif. 91010

## ENGINE

| | |
|---|---|
| Engine Type | SINGLE CYLINDER, 2-STROKE |
| Bore | 54mm |
| Stroke | 54mm |
| Displacement | 123cc |
| Compression Ratio | 11:1 |
| B.H.P. at R.P.M. | 15.5 DIN AT 7,500 |
| Carburetor | 26mm BING CONCENTRIC |
| Ignition | FLYWHEEL MAGNETO |
| Starting System | FOLDING KICK |
| Lubricating System | OIL MIST |

## FUEL AND OIL

| | |
|---|---|
| Oil Capacity | IN FUEL |
| Oil Recommended | 2-CYCLE, 4% |
| Fuel Capacity | 1.8 GALLONS |
| Fuel Recommended | PREMIUM |
| Approximate mpg | 55 |

## FILTERING SYSTEMS

| | |
|---|---|
| Air | MICRONITE PAPER |
| Oil | SCREEN |
| Fuel | SCREEN |

## FRAME

| | |
|---|---|
| Frame Type | DOUBLE DOWN TUBE |
| Weight Distribution | FRONT: 47%, REAR: 53% |
| Wheelbase | 53 TO 54 INCHES |
| Ground Clearance | 7.5 INCHES |
| Peg Height | 12 INCHES |
| Seat Height | 31.5 INCHES |
| Handlebar Width | 33 INCHES |

## SUSPENSION-TYPE

| | |
|---|---|
| Front | TELESCOPIC |
| Rear | SWING ARM |

## SUSPENSION-TRAVEL

| | |
|---|---|
| Front | (BETOR) 6.5 INCHES |
| Rear | (GIRLING) 3 INCHES |

## DRIVE TRAIN

| | |
|---|---|
| Clutch Type | MULTI-DISC, WET |
| Primary Drive | GEAR (2.8:1) |
| Countershaft Sprocket | 15 TEETH |
| Final Sprocket | 52 TEETH |
| Final Drive | ROLLER CHAIN (3.466:1) |

| Gear Ratios | Internal | Overall |
|---|---|---|
| 1st | 3.40:1 | 33.98:1 |
| 2nd | 2.166.1 | 20.93:1 |
| 3rd | 1.533:1 | 14.87:1 |
| 4th | 1.263:1 | 12.25:1 |
| 5th | 1.052:1 | 10.20:1 |

## TIRES AND WHEELS

| | |
|---|---|
| Front | 2.75x21 DUNLOP SPORTS |
| Rear | 3.50x18 DUNLOP TRIALS |

## IMPRESSIONS

| | Poor | Good | Excellent |
|---|---|---|---|
| Throttle Response | | | ● |
| Acceleration | | ● | |
| Power Band | | | ● |
| Starting | | | ● |
| Engine Noise | | ● | |
| Muffling | | 91 Db(A) | |
| Vibration | | ● | |
| Handling | | | ● |
| Choice of Tires | | | ● |
| Suspension | | ● | |
| Rider Comfort | | ● | |
| Transmission | | ● | |
| Instrumentation | Does Not Apply | | |
| Lighting | Does Not Apply | | |
| Toolkit | Does Not Apply | | |
| Paint and Chrome | | ● | |
| Styling | | ● | |
| Mileage | | ● | |
| Braking | | ● | |

# Nuts & Bolts

tried three kinds of plugs, an NGK (B7HZ), NGK (B77HC), and a Champion (L-85). These didn't help. I'd really appreciate some help.

Gary Hurd
Flint, Michigan

*Can't help Gary, unless you can determine the type of plug fouling you're experiencing. Is it wet from lack of voltage? Is the gap bridged on the spark plug from a piece of dirt because the air filter isn't doing its job or there's an air leak between the carburetor and air filter? How about the spark plug just giving up after 125 miles from overheating? One thing I would try at this point would be a platinum Bosch of the proper heat range, they're expensive but they do the job.*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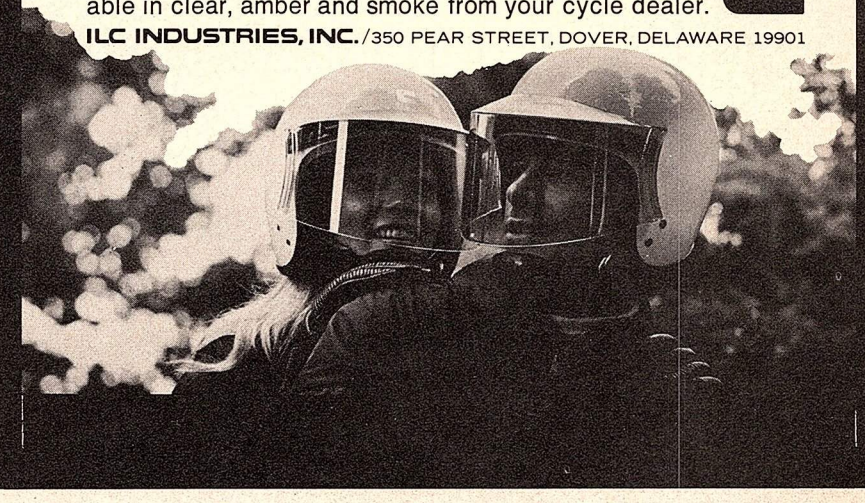

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|---|---|---|---|
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| Sportster | 29.95 | CB305, 350 450 | tube size 1-5/16" |
| Sprint | 29.95 | CL305, 350, 450 | tube size 1-3/8" |
| B.S.A. | 29.95 | 750, 500cc. | |
| | | SL350 w/cap nuts | $39.95 |
| Norton 1⅜" | $34.95 | Kawasaki | $34.95 |
| Norton Matchless 1¼" | 34.95 | 90, 125, 175, 250 A7 1¼" | |
| Royal Enfield | 34.95 | 250, 350, 500 | |
| Ceriani | 34.95 | 650 w/cap nuts | $39.95 |
| Hodaka (all models) | 34.95 | Suzuki | $34.95 |
| | | 90, 125, 175, 250, 350, 500 | |

| | |
|---|---|
| Yamaha | $34.95 |
| 80, 100, 125, 175, 180, 250, 350, 305, 650 | |
| Spacers | |
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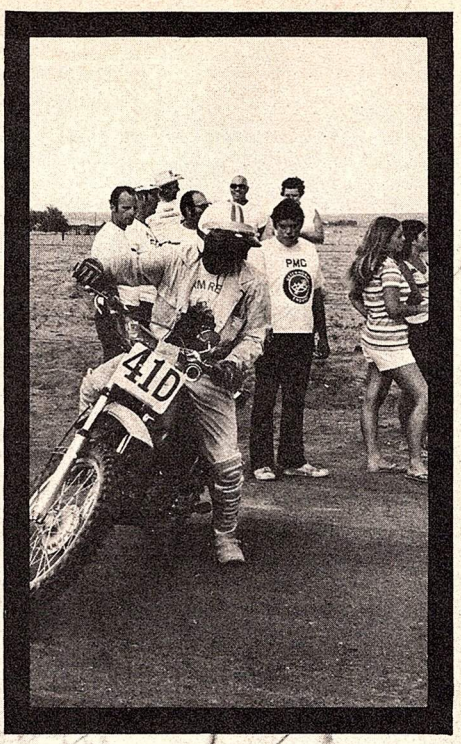
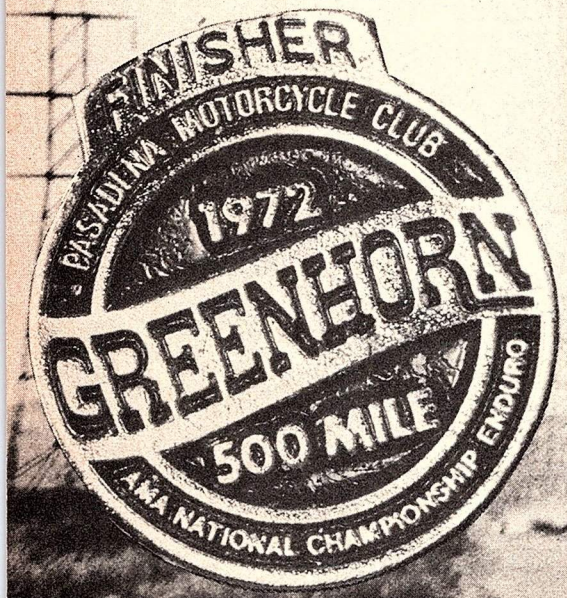
Each week there are hundreds, maybe a thousand sporting events for motorcycle enthusiasts to be involved in. From poker runs and rallies, to moto cross races and flat track. both professional and non. Most are run under sanction of the American Motorcycle Association, some are not. Whatever, the end result spells fun and recreation for motorcyclists.

The AMA has a long and involved system for determining National Champions in many of their various categories, and among them is Grand National Enduro Champion. A chunky man from Amherst. Ohio, named John Penton has pretty well owned the title over the last two decades. Recent years have seen Denny McLain and Ron Bohn coming out on top, but the three are always right there.




To become the Grand National Champion you have to either win or do very well in a number of AMA designated National Championship enduros. Most are held in the mid-eastern part of this country, thus your Champions come from that area.

The enduro game is wholly American, they have nothing like it in Europe. It is an exacting science of riding a motorcycle at



# GREENHOR

an average speed over natural terrain so you may arrive at hidden control points on a precise minute. A minute early, which could mean seconds, will cost you two points and a minute late would cost one. The person who loses the least number of points is determined the winner. In case of a tie they have a tie-breaker when not only the minute, but actual seconds are recorded as your arrival time. In case of a tie at this point then the rules call for the rider who has cleaned, or zeroed, the most checks to come out on top. A perfect arrival at the tie-breaker control woulud be thirty seconds into the correct minute. And this all narrows down to the judgment of one man holding a stopwatch and another recording the times as he shouts them out.

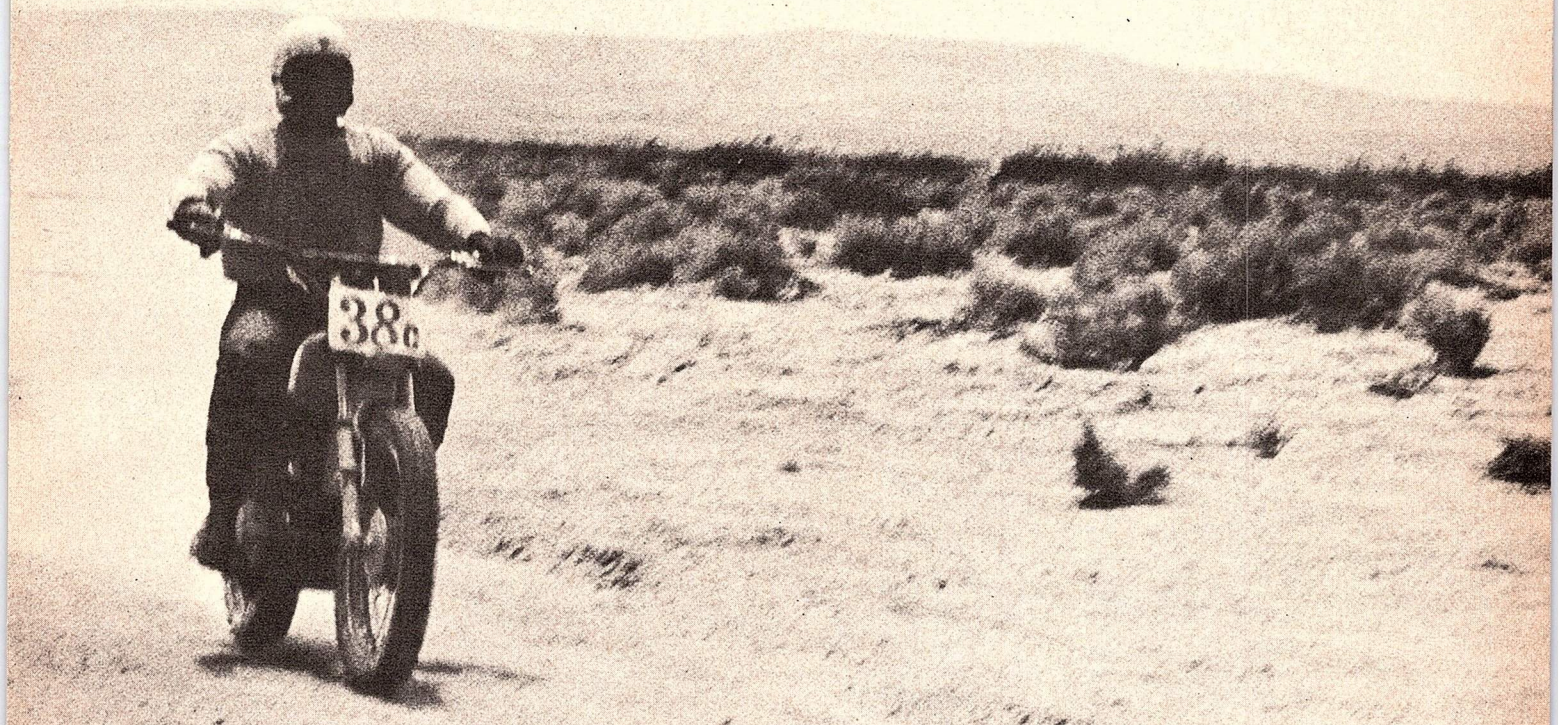
There are two enduros that count most towards obtaining that Grand National Cup, both are run for two days and, because of this, are awarded double points. The Jack Pine, held in northern Michigan is the oldest and most famous. This is a September event and usually has enough points to determine the Champion for the year. Another equally important enduro, although rarely contested by the eastern state enduro riders, is the Greenhorn.

The Horn is another two-day event, is classified as a 500 miler, and also awards maximum points to the Grand National Championship tally board. This event is held on Memorial Day weekend and uses the Southern California mountains and deserts as its site. Jack Pine is an interesting ride with its sandy roads, densely treed woods, and treacherous mud bogs. There can be bottlenecks, traffic jams, and complete motorcycles lost deep in the mire of an overly wet, and well torn up meadow.

Greenhorn is utterly different. Traffic jams, bottlenecks, and mud just aren't there. You can forget about trees, too.

For the past couple of years the Horn started in a parking lot, the Birmingham Small Arms (BSA), Duarte, California, parking lot. It follows dirt roads over the San Gabriel mountains, 6,000 feet up, and then drops you into the Mojave desert. Once out of the mountains, the overnight or halfway stop is still 180 miles away. 180 miles of desert lie ahead, and this beautiful desolate country has more kinds of rides to offer than Disneyland.

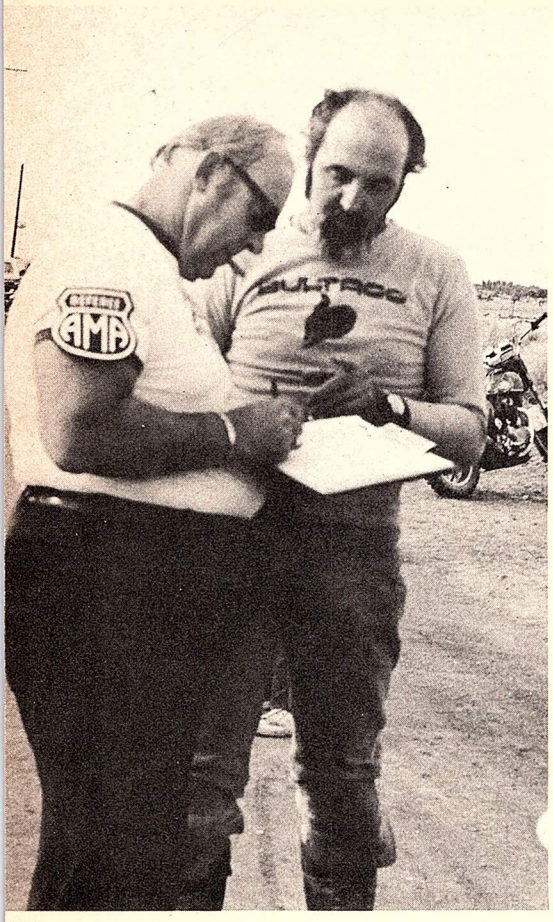
The return trip takes a different




# N- THE 500-MILE NATIONAL CHAMPIONSHIP ENDURO

## AN EPIC OF ONE OF THE CONTESTANTS, MODERN CYCLE'S EDITOR

# GREENHORN NATIONAL ENDURO




path whenever possible, duplicating the first and last 70 miles over the mountains. It finishes where it starts late Sunday evening and always draws a crowd of pit crews and DNFs.

This, the 26th running of the Horn, was my 10th or 12th. (Who keeps score anyway?) Our Bultaco mounted group was assigned the 49th minute. (And someone told me I used political pull to get good starting numbers!) We had the best timekeeper in Bob Steffan and the efficient Center/Casper pit crew—some of the things necessary for winning the Horn.

After a couple of miles of residential road closely scrutinized by the Law we turned onto the dirt roads of the San Gabriel mountains and began our rapid climb. The gravel road is slippery and you keep looking down to see if there actually is air in your rear tire. Early morning stiffness and the cold makes you a bit spastic as you try and herd your bike through those nasty, gravelly, adverse cambered turns, and hold a 24 mile per hour average!

The climb to the top is rapid, about 4,000 feet in 9 miles. The engine runs a little soft from the thin air and the roads are damp from overnight moisture. A smell of pine is thick in the air, the sky is blue, and the San Gabriel Valley is obscured by a thick blanket of yellowish smog.

You cross over the mountain tops and you're looking down into the clear air of the Mojave desert. A range of mountains so distant they're purple, and you know by the end of the day you will have ridden beyond even them.

It was too many miles before we caught the first time control, right on our minute. Two guys and a couple of gals were working the check. One gal wrote 9:22 on my time card and the other wrote 9:23 on Bob's; this made him a minute late when he actually was not. Bob was busy checking his watch against the timepiece at the check and didn't notice the error on his time card.

We rode on into an emergency gas stop on time, then into the foothills of the desert, and on to more fast fire roads to slip and slide and have fun on.

From there it was a fast shot (36 mph average), to Pearblossom, our first meeting with the pit crew and a 10-minute rest. At this point we re-fueled the bikes with petrol and our bodies with Gatorade. (Too early in the day for Greateraid, that's the green liquid with a dash of gin.)

The Horn takes a bit more mental figuring than eastern enduros because they like to run a variation of speed averages. The two Jack Pines I rode were figured on a straight 24 mph average ov-

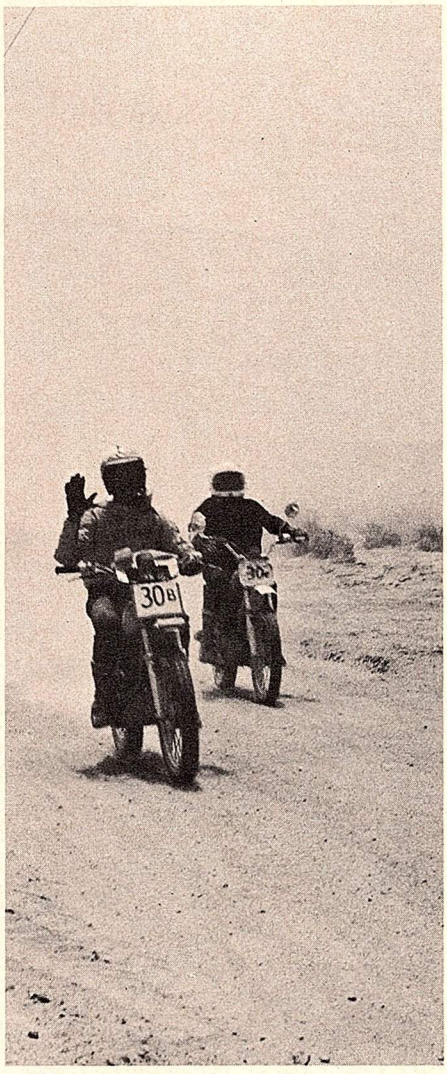
er the entire 400-mile run. Pasadena M.C. had us riding the following averages: 18, 24, 30, and 36. If a section gets a little difficult they slow your average up. If you've got a paved road 36 mph is the speed requested. If anything, these variables keep you on your toes.

Riding across the desert is an experience in itself. Andy Richman, a Bultaco honcho who has ridden motorcycles everywhere but in the desert, got his baptismal on the Horn. Out of Pearblossom, our first venture off an improved dirt road, was a dry river bed. If you relax with the power on and let the front wheel find its way you can really haul down these dandy freeways. Andy did the natural thing and stiffened up and got pitched over the bars as his front wheel dug into the sand. Lesson one: Stay loose.

After a few miles Andy was gettin' with the program when we jumped into some open desert. Andy was looking at those prickly flowers near the trail when all of a sudden one of 'em jumped right out and stuck into his knee. Lesson two: Don't mess with the flowers, out here we call them cactus.

The Mojave Desert has a few stands of volcanic rock that generally rise a couple hundred feet above the surface. Their perimeter at the base will measure a half-mile to a mile and one side fills with blow sand from late afternoon windstorms common to the desert. We call them blow sand hills and they thought it only proper we ride over one during the Horn. It takes a combination of momentum and horsepower to claw your way over these, and if you happen to need low gear you will end up pushing your bike. For some reason Andy had lesson number three all figured out before we got to it and he and his Alpina successfully negotiated the section.

Near the 200-mile mark of the first day they threw the first tough section at us. Powdery sand will blow into mesquite brush and build up suspension-collapsing, body-fatiguing humps. The mesquite was growing so dense we couldn't steer around and stay on the 24 mph average so we had to hit 'em square on. About 15 miles of this treatment is equal to doing deep knee bends continuously for 40 minutes, providing your motorcycle has the horsepower to pull you along in 3rd and 4th gear. Naturally, they had a check strategically placed at the end of the section which Bob and I hit a minute late. Down 2. (We had gotten lost earlier and found the previous check a minute behind.)




From there was the welcome site of Four Corners and a 43-minute lunch break. It was now Greateraid time. The pit crew went to work checking the bikes over and refueling. We ate Charlotte Center's Hawaiian luau brunch. Andy, not used to doing deep knee bends, was talking about retiring, we informed him nobody quits the Horn, you must break something first.

For the first time in several years the Horn was well done for the most part. Posted mileages at controls and secret checks jived pretty well with our odometers, and the clocks were all within 20 seconds of the two Seiko electronic watches we were using. Old friend Neil Fergus rode pilot, that is he started out ahead of the first minute and visited all the check points to make sure their timepieces were correct. They hadn't done this for many a Horn. But they had to have a screw up anyway.

While having lunch at Four Corners we re-read the rider's instructions which informed us that the next section could be confusing because another motorcycle club was having a race there the next day. In part the instruction read both clubs agreed not to post cards or arrows, and not to throw lime. We were to follow orange ribbon. As it turned out the obvious course took us up a river bed (quite dry), well limed and posted with arrows of a different color than PMC's green ones for Saturday. There was no orange ribbon less than 6 months old. So we arrived on a horrifying scene of half the entries going in all different directions and nobody knowing for sure the proper way to go. As it worked out we criss-crossed the desert looking for orange ribbon and arrived at the Cuddyback emergency gas check several minutes late. From there on the course was well marked. The check between Cuddyback and Four Corners was not manned, so those who were lost and found their way lucked out.

During most of the first day I kept getting into little dices with Bruce Brown who was riding his 175-pound Ossa featherweight. About 30 miles from the end of the first day we were talking about tire pressure. He was running 12 pounds, I told him I liked to run 9, at which time we both looked at my very flat front tire and burst out laughing. Apparently 9 pounds isn't enough to keep the rocks from pinching the innertube in the tire's sidewalls. So I rode it in flat.

You sleep well Saturday night. If the day's exercise doesn't get you, the evening motorcycle repair work will. If everything goes

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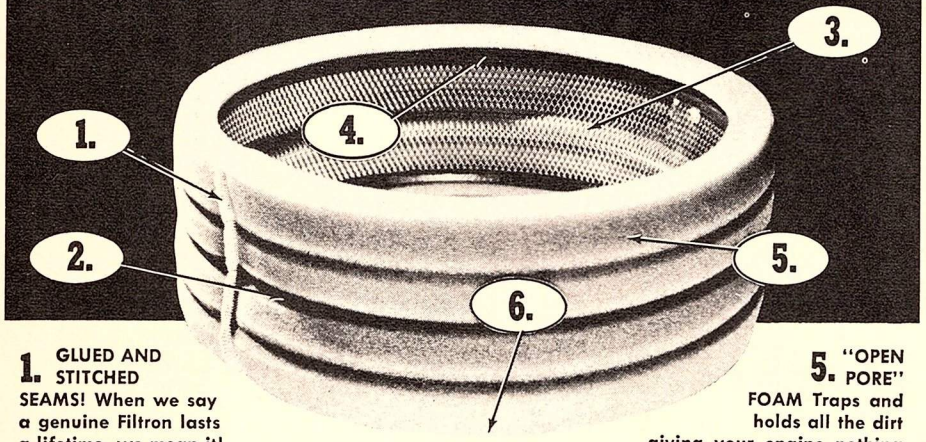


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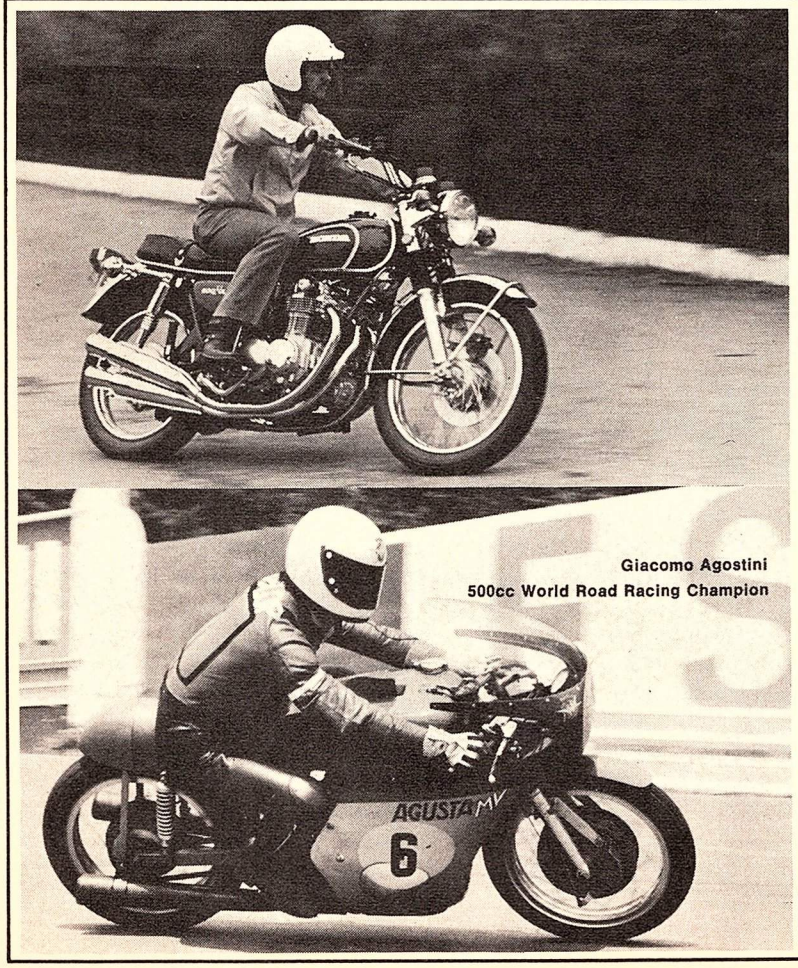
# GREENHORN

right all you generally need to do is clean the air filter and adjust the rear chain. I had to change a tire and secure the exhaust system plus clean the air filter. Matadors enclose their rear chains and seldom need to be looked at.

Getting out of bed Sunday morning is a real chore, especially for guys who, like Andy Richman, haven't played this game in the desert before. But the Center/Casper group persuaded him to make the return trip. (Andy's alternative was to walk back to Duarte.)

According to the rule book put out by the AMA a two-day enduro starts on one day and finishes on the next. Mileage is supposed to accumulate and the same timepiece used to start the first day is supposed to start the next. PMC got the clock part right this time, but the guy who laid out the first section of the second day used his own rules. We sarted on mile zero instead of 237.3 miles where we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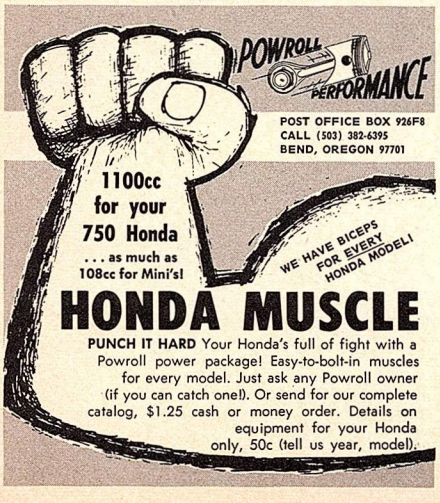
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had left off the day before. So grumbling a little bit we readjusted and headed on. Steffan the Magnificent has perfected a method of figuring time and distances in his head and consistently runs on the ½-minute. He is uncanny. I use a roll tape which I stayed up past midnight to compile, and it naturally was figured on an accumulated mile basis. We frequently cross check each other and as long as we agree everything runs smoothly. Other than the first section of the second day our system ran like clockwork.

The ride back was relatively uneventful until we got into the mountains again. Bob and I dropped but another point.

Saturday's average on this road was 24 mph, reasonable. Coming back they raised it to 30, still reasonable except for the part where we had to race down an oiled road crawling with holiday vacationers in their Detroit four-wheelers. Riding furiously to keep from being too late we almost nailed a couple right between the headlights. (Another black mark for PMC.)

We were a minute late there and dropped a couple of more in the mountains to finish with scores of 994 and 995 if Steffan gets his point back for the error at check one of the first day. If not, it will go to the tie-breaker. I think for the first time in quite a while the Pasadena M.C. will not have to resort to drawing the Greenhorn winner from out of a hat. Their mileage and clocks were pretty well on, all they have to do is add the scores up properly.

As for Andy, well he made it with a pretty respectable score. When asked if he wanted to do it next year he said, "Why yes, as long as the Center/Casper pits are there, too." Nearly 500 starters, about 150 finishers—I would say this was a bit tougher Greenhorn than what we've seen in the past. Perhaps some of those eastern boys would care to try it now that PMC has improved their method of putting on the Greenhorn Enduro. •

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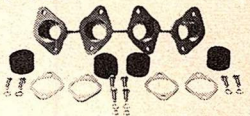

Bolt-on instant horsepower. No engine or frame modifications necessary. Precision cast aluminum.
Comes with all mounting hardware: gaskets, hoses, linkage (not shown in photo), bolts, etc. Mounts twin 40DCOE Weber carbs.
**$44.50**

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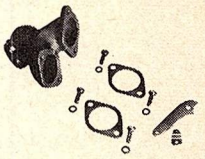

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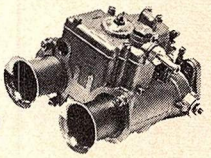
## NEW WEBER CARBURETORS



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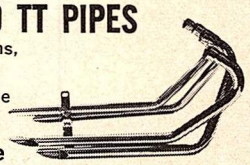

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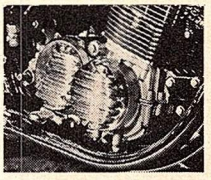

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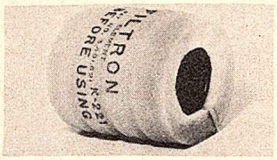
# New Products




## FOR YAMAHA CT-2

Filtron Products now offers the filter element numbered K-221 for the Yamaha CT-2 125cc.

Filtron elements are specially made to give you maximum filtration with NO restriction of air intake. Increases mileage, lasts longer, and replaces your stock filter just in minutes. To keep your Filtron element looking like new, remove, wash with non-leaded gasoline or kerosene, re-oil, and re-mount it onto your motorcycle. That's it.

To purchase the new Yamaha CT-2 element or elements for other motorcycles, contact your local motorcycle dealer or you may write to, Filtron Products Company, P.O. Box 7637, Dept. MC Van Nuys, California 91405. Filtron is a division of Krizman Enterprises, Inc.

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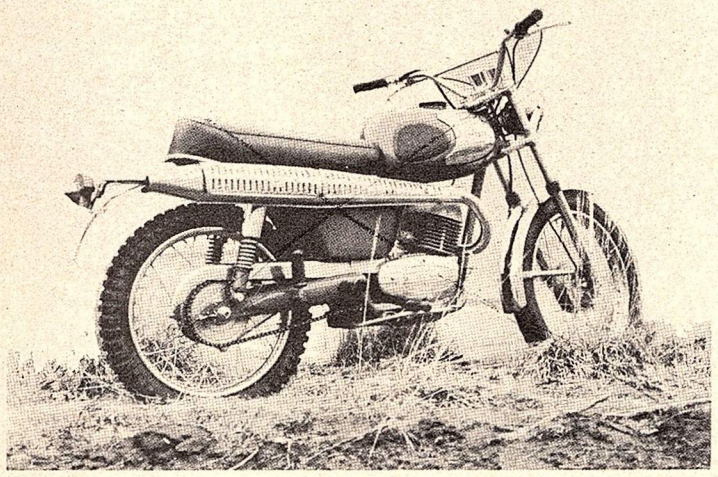

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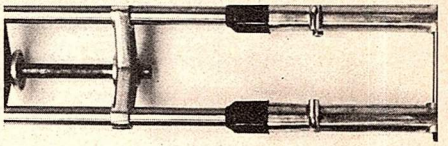

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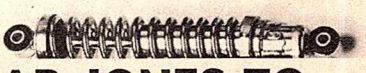

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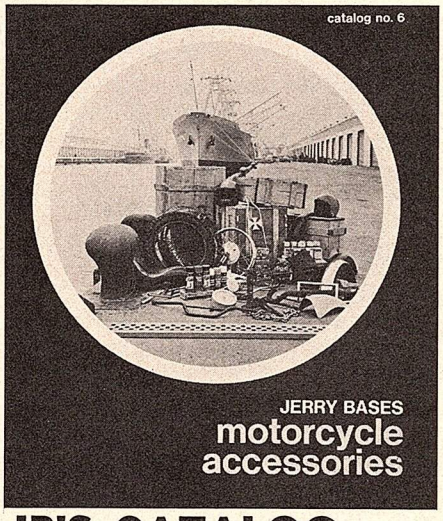
Hispania, Spanish manufacturer of specialized cycle parts, has appointed the Hap Jones Distributing Company as a U.S. distributor.

Hap Jones has already introduced two of Hispania's major products, the Alpha shocks, and the Taurus forks. Both products are precision made from Swedish steel and beautifully chrome plated.

The Alpha shock comes in eight models to fit all motorcycles. Spring rates are from 50 to 125 pounds and there is a super cushion two-way damping on all road racing and moto cross models. Prices range from $33.95 to $38.95.

Taurus forks come in both a road racing and moto cross design in middleweight and heavyweight models. They are easily installed on all popular make cycles. Lightweight models sell for $122.90; heavyweight, $135.90.

Details on Hispania shocks and forks are given in the new 1972 Hap Jones parts and accessories catalog, or dealers may contact the Hap Jones office/warehouse in San Francisco; Prattville, Alabama; and Norwood, New Jersey.

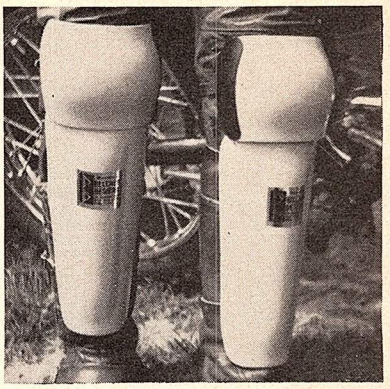



## JB'S CATALOG

The '72 edition of the Jerry Bases Distributing Company catalog of quality motorcycle parts and accessories is now ready for immediate delivery. With over 110 pages, the catalog illustrates thousands of motorcycle and recreational vehicle parts and accessories, including many exclusive items sold only through Jerry Bases. The catalog features separate price sheets and a new simplified numbering system to ease ordering. Convenient ordering blanks will also be included.

(Text continued on page 64)


**LEG ARMOR!**



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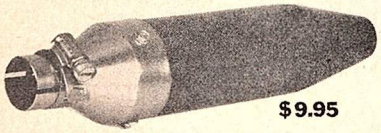

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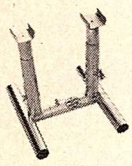

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# New

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## FIBERGLASS HELMETS

All the new Top Gear helmets have Snell Foundation approval, the toughest of all helmet safety standards. The manufacturer says the helmets also have been tested and endorsed by a number of champion riders. Some claim they're the most comfortable helmets they've ever worn. Every Top Gear helmet is constructed of 100% hand laid "Blue Line" fiberglass, by far the lightest and strongest of any fiberglass fabric. Up to a full pound lighter than helmets made from common fiberglass.

The brilliant colors (red metalflake, blue metalflake, rainbow metalflake, or white), can't chip because they're locked in underneath a clear fiberglass outer shell.

Conventional models are $27.95 and full face coverage models are $49.95 designed for competition riding. See them at your bike dealer, or write to: Top Gear, 80 Pompton Avenue, Dept. MC, Verona, New Jersey 07044.

## CYCLE-LOK

The motorcycle division of Chapman Security Products has an all-new concept for securing your motorcycle against theft. Their lock uses a large diameter tempered alloy steel wire rope with a bonded on vinyl covering to protect your cycles chrome. Each end of the cable has a uni-

(Text continued on page 66)

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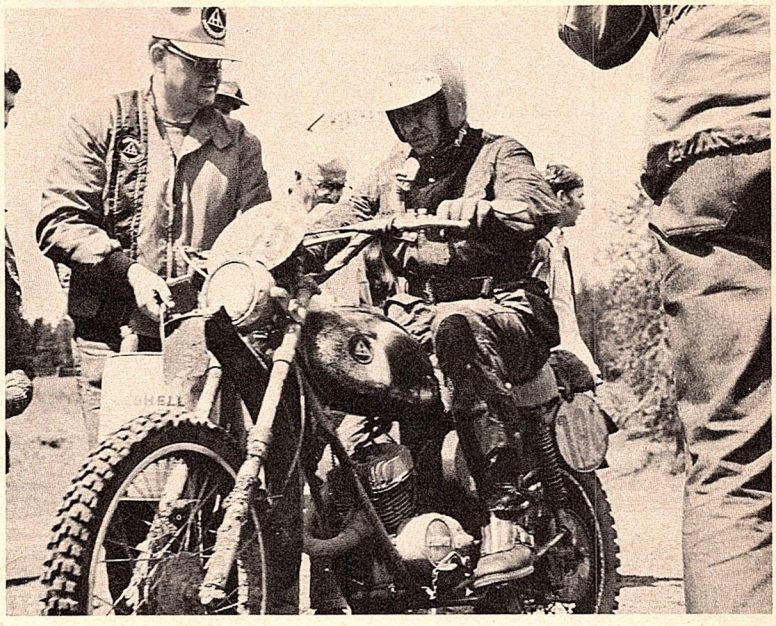

**Part of our Hodaka Research and Development Team at a mountain check point in the 400 mile, 2-day Bad Rock Trial out of Weston, Oregon. We're constantly involved because we're constantly perfecting Hodaka for you.**

**Hodakas are designed** in a little Oregon town that's nestled up against the Blue Mountains. It could be rural anywhere. Life is unhurried in Athena. That's probably why Hodaka's that way.

**There's plenty of time** to concentrate on designing an excellent motorcycle . . . to plan ahead so it won't be obsolete in six months and to engineer it so new parts fit old Hodakas. Nearly 100,000 Hodakas have been handmade over the last nine years and we can make everyone of them run today. We're as proud of our old Hodakas as we are of our new ones.

**A motorcycle is an investment,** and Hodaka costs a little more than some others of equal displacement. But a knowledgeable buyer expects that of a quality, hand-crafted machine. Unlike a car . . . it's easier to see what you get for your money.

**Take a good long look at Hodaka** and see what we mean by hand craftsmanship. This is not a mass-produced, stamped out, assembly line "quickie". It's a "planned ahead", handmade, quality motorcycle. And in Cycle magazine's recent readers' survey, we discover that Hodaka out-sold every European model on the market.

**Hodaka's made with durable materials.** All the way from the stainless steel fenders to the deep, dark confines of one of motorcyclings strongest 5-speed transmissions. And as for the Hodaka piston port, 2-stroke engine, history itself is the proof of its performance. The word "Hodakability" was founded on its reputation!

**Hodaka owners** come in all sizes. We planned for that by making Hodaka adjustable. For example, the footpegs adjust to fit foot length so that the shift lever isn't too close or too far away. No baloney stuff like removing your foot from the peg to make a shift or apply the brake. Try the seat. It's comfortable and long enough for tall riders. It'll give you a better disposition at the end of a long ride.

**We don't forget you** after you buy Hodaka. We, and a long list of manufacturers offer more accessories to fit Hodaka than any other model. Once you register your Hodaka with us, we'll send you information about new accessories, technical improvements, tuning technique and any information we can . . . adding to the years of pleasure you'll get riding Hodaka.

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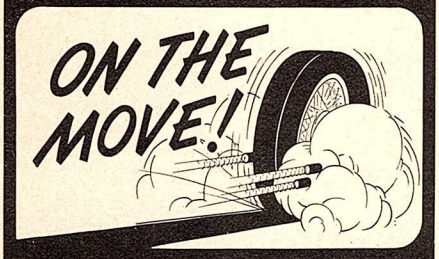


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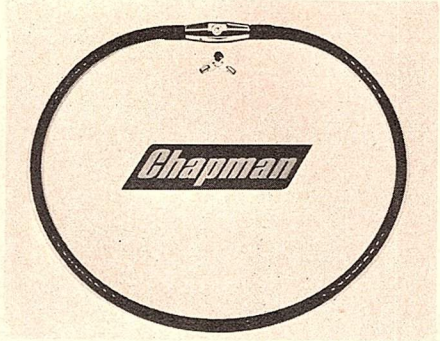
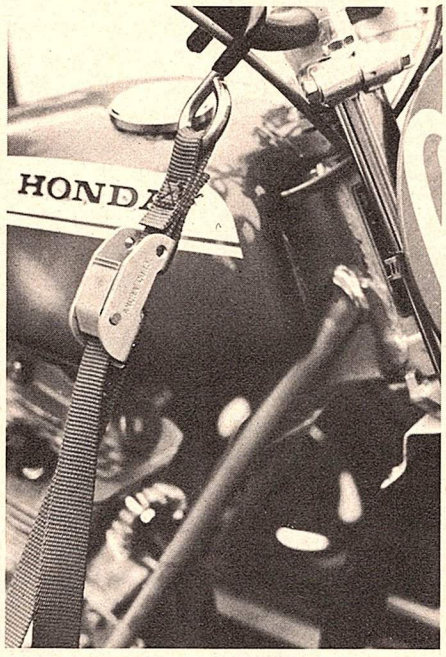
# New




que coupler which uses the acetype of circular lock while fitting together to form a smooth, strong, and positive locking arrangement. The lock can also be folded double to reduce its size for ease of storage.

The Cycle-Lok is available at cycle shops everywhere, or write to, Chapman Security Products Corporation, 5567 North Elston Avenue, Dept. MC, Chicago, Illinois 60630.

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(Text continued on page 74)

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# A BAJA BOG-WHEELER

A trip by Filtron Products in Van Nuys, California will almost invariably turn up something interesting in the area of off-beat motorcycles. One of the divisions of Filtron Products, Products Testings, is in the business of designing or modifying motorcycles for various importers and distributors. This is the department where most of the "good things" can be found.

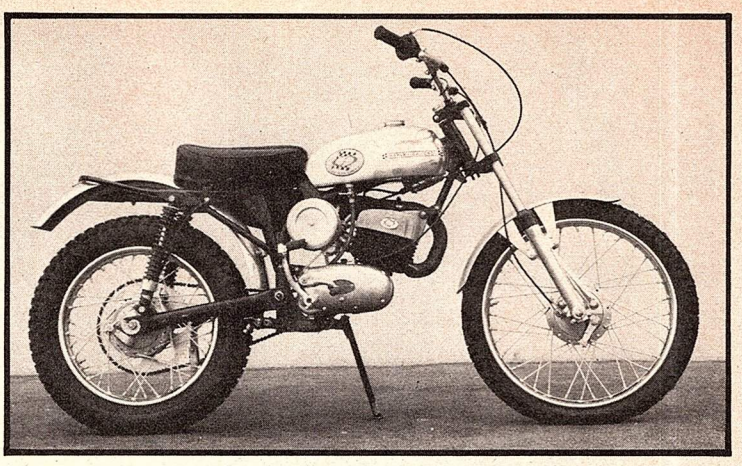
Our latest visit to Filtron turned up a Harley-Davidson 100cc Baja which has been transformed into an extremely attractive trials bike. The machine had been built by Jack Krizman, head honcho at Filtron, and he very graciously offered to let us have it for purposes of evaluation. We were just as gracious in our acceptance of the offer.

## Converting the H-D Baja into a Trials Iron.

Essentially, the bike is a stock Baja chassis which carries an old 4-speed 100cc engine coupled with a wide ratio gearbox. In order to make the engine even more tractable a 24 millimeter Mikuni carburetor was fitted. The carburetor is mounted on a long alloy inlet stub, and it draws clean air through the stock Baja element. In order to obtain the narrow contours so desirable on a trials bike, a Hooker silenced pipe was extensively modified. The exhaust system is tucked in well out of the way of the rider and extensive heat shielding provides additional protection.

Both the brake pedal and the shift lever had to be shortened in order to get them closer to the rear-set footpegs. Even in its shortened space the shift

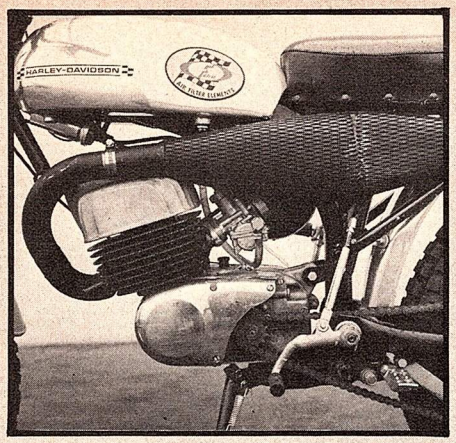
# BAJA into a Trials Iron

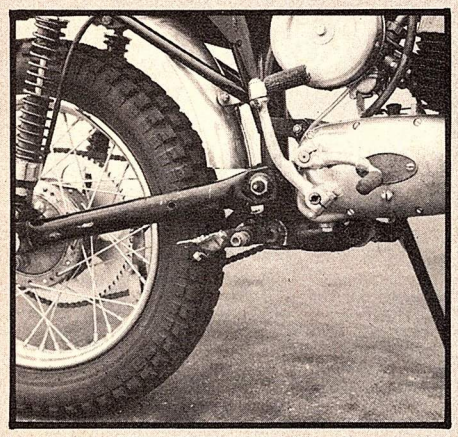


lever is far enough forward to require the rider to move his foot off the peg to make gear changes. The brake pedal works better and it nestles under the toe of your left boot.

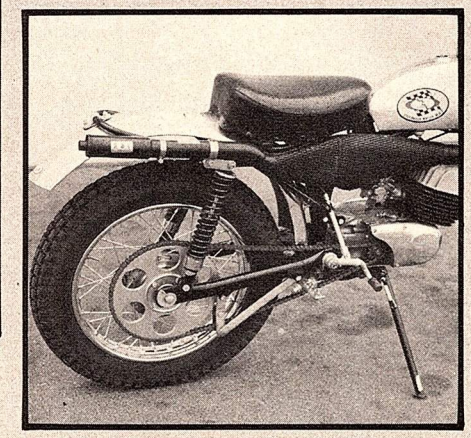
With the exception of certain suspension components the chassis is absolutely stock Baja. The front forks are the standard Ceriani units found on all 100cc Harley-Davidsons. The stock rear shocks were replaced with a set of Koni dampers. The stock fender was retained at the front of the machine, but the rear mud guard was replaced with a light alloy component. Also of light alloy is the narrow little gas tank which replaced the stock container. The seat on the Baja Trials Special is a racing solo seat designed for the H-D ERS 350. Replacing the standard handlebars is a pair of bars with considerably more "rise." The reason for the taller bars is to make it easier for the rider to function in the standing position so necessary for real trials riding. One of the major changes in the chassis was the relocation of the footpegs. For proper trials work the footpegs should be located far enough back to allow the rider to easily affect the loading on the rear wheel. One theory has it that footpegs should fall on a vertical line that corresponds with the leading edge of the rear tire. Special peg mounts were fabricated and welded in a position

(Text continued on page 80)

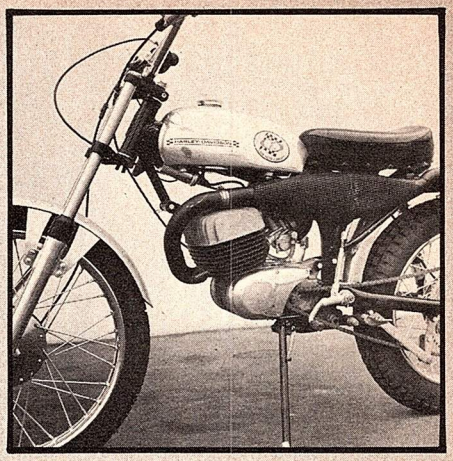


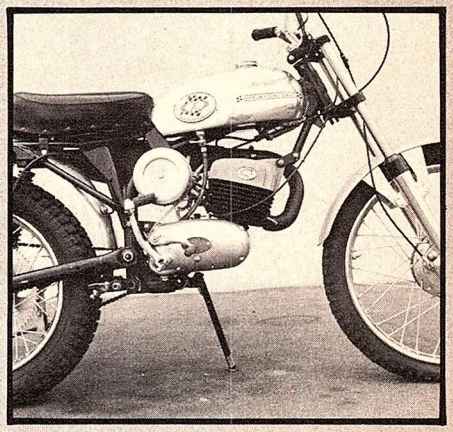



*The main modification in transform- the Baja to a trials bike is the relocation of the footpegs rearwards. Ideally, the pegs should fall on a vertical plane which corresponds with the leading edge of the rear tire.*

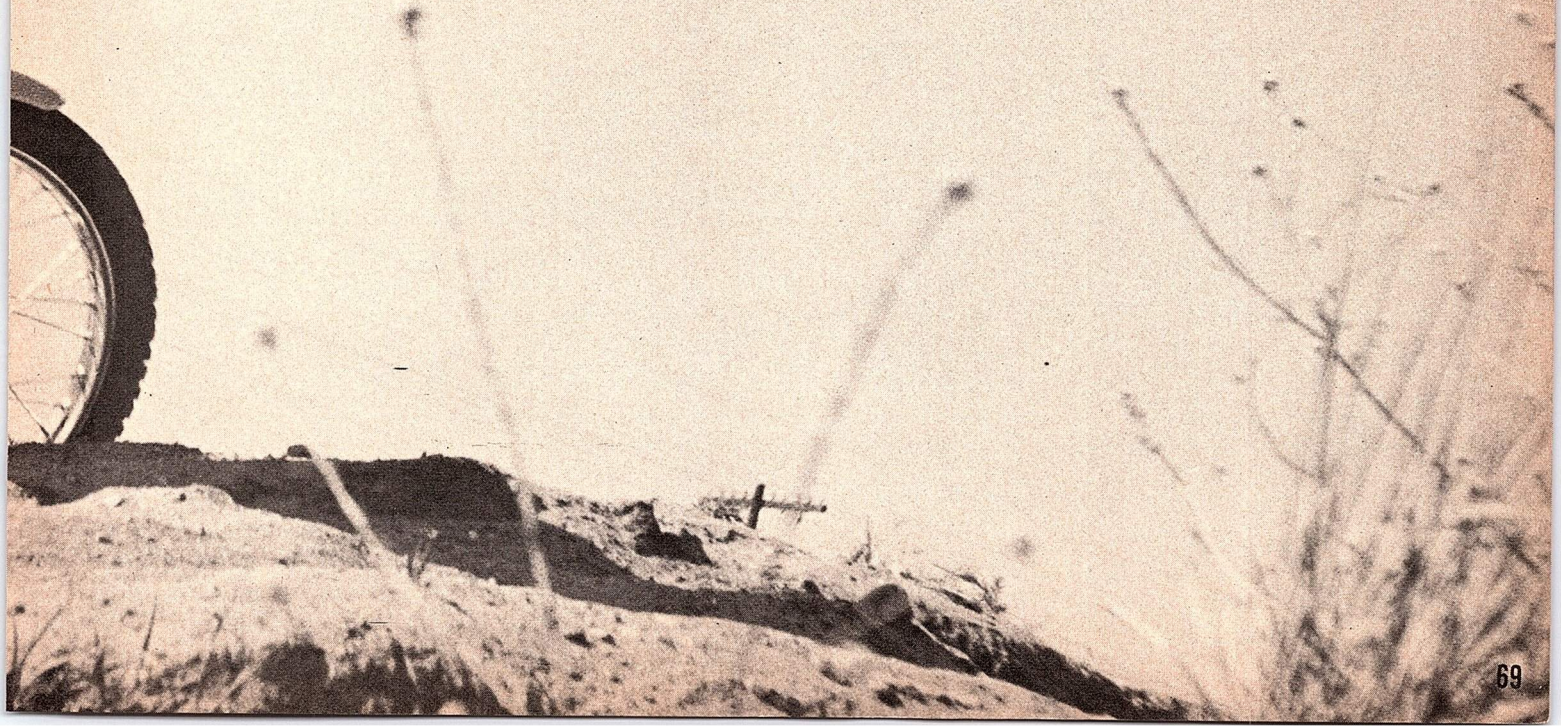


*The nicely contoured aluminum alloy gas tank is an accessory item from Webco. The seat is a stock Harley-Davidson unit designed for the 350cc ERS. The bike is narrow across the mid-section as a good trials machine should be.*



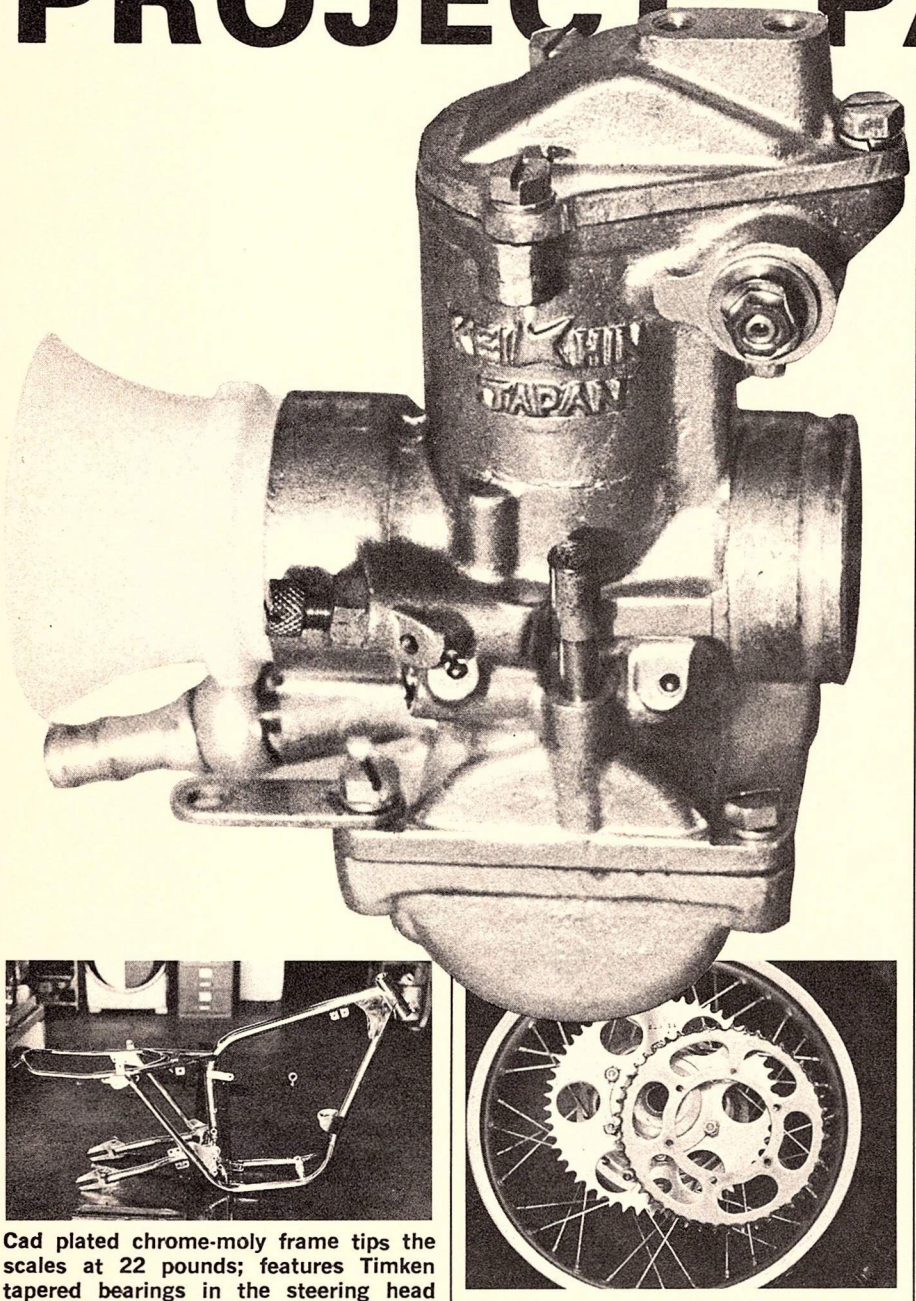


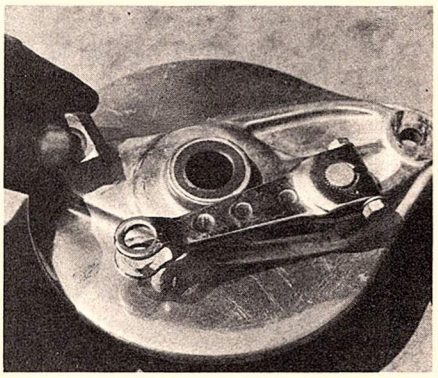
*A Hooker silenced pipe was extensively modified to move it in out of the way of the rider. Extensive heat shielding provides even more protection for the rider's left leg.*
*The brake pedal was modified to get it within range of the rear-set footpegs. The brake's stop is a simple piece of aluminum tubing slipped over the actuating cable.*



# UTILIZING THE PROPER PIECES, IT WAS EASIER THAN WE THOUGHT.

# HONDA XL-250 PROJECT- PART 2



Since we went to a rod operated rear brake we cut this lug for the cable from the backing plate.

The stock T stem has been machined to accept Timken bearings; Trackmaster does this when you order the chassis.

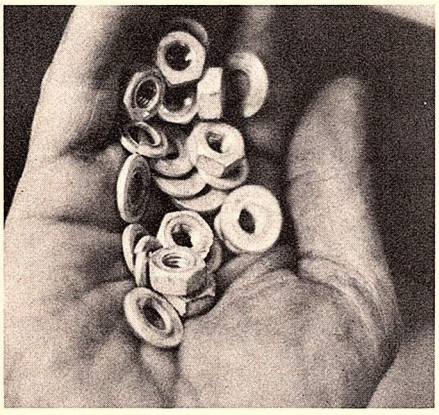


Cad plated chrome-moly frame tips the scales at 22 pounds; features Timken tapered bearings in the steering head and maintenance-free oilite bronze bushings in the swing arm fulcrum.

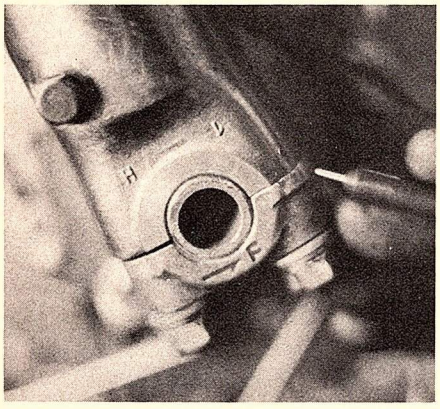


The Circle Industries super-light alloy sprocket has four more teeth than standard and is less than half the weight of the standard one.

Probably the most intriguinig part of doing a project such as this is the fact that you're never really done. There is always something that can be modied, or lightened, or even discarded. At this point, the end of phase 2, we have completed everything but the engine and its related pieces (exhaust pipe, carburetor, and air filter).

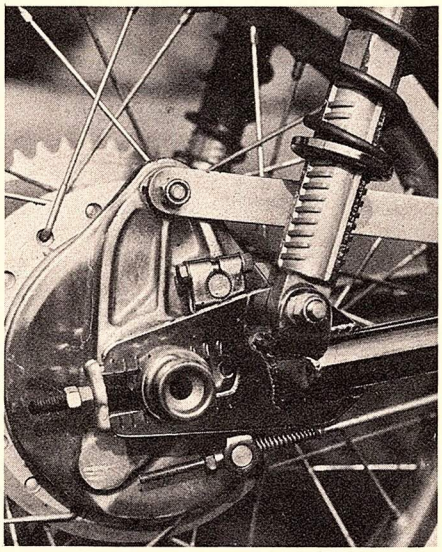


**It takes all these nuts and washers just to hold the front wheel on.**

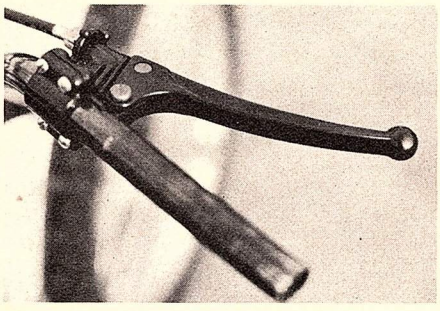


**The front of the fork lower cap is polished so you don't put it on backwards.**

Over the past few weeks, with the frame in its unplated condition so we could cut and weld here and there, several qualified riders had ridden the bike totalling probably a couple hundred miles. We took notes and listened to suggestions and went back to the drawing board. In its final configuration prior to disassembly and plating we had a motorcycle that looked like this:

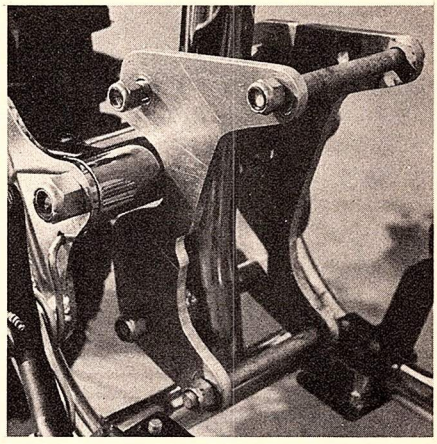


**This brake system puts the torque arm in compression, generally considered a no-no. But it works and we feel it eliminates the hop commonly found when stopping the XL-250.**

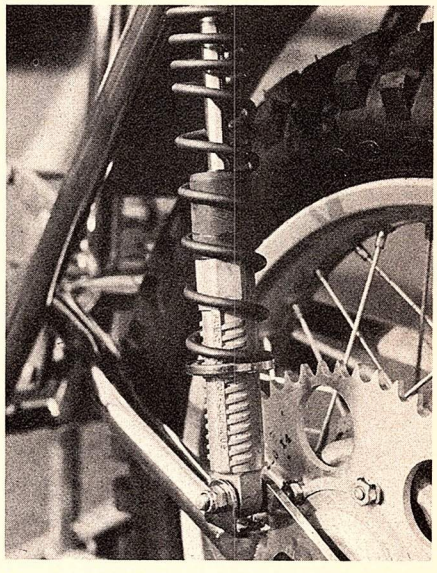


**Drill the aluminum adjusters to 9mm diameter so the big Honda cables will fit.**

1. With the stock engine and gross exhaust system a weight of 247 pounds.
2. The wheelbase varies between 55.5 to 57.5 inches according to the position of the rear wheel.
3. Steering head angle is 30 degrees from vertical, one-half degree more than stock.
4. Engine crankshaft position is nearly centered between



**Engine plates are cut from quarter-inch aluminum plate stock, mounting bolts are aircraft quality wth locking nuts.**



**Shocks are Bobrick, springs come from Camco. These units weigh less than half of the normal rear suspension components found on the stocker.**

# UTILIZING THE PROPER PIECES, IT WAS EASIER THAN WE THOUGHT

the front and rear axles, canted 5 degrees forward, and is located one-half-inch closer to the ground than the stock frame.

5. Swing arm length is 16¾ to 18¾, again depending upon the location of the rear axle.
6. Peg height is 13 inches, seat height 32.5 inches, and ground clearance 8¾ inches.

With the standard 23 horsepower engine, handling is neutral, the bike follows very well in turns and gets over the rough stuff without trying to swap ends. Suspension has much to do with this, and although we left the forks alone we did install a set of Bobrick variable adjusting shocks. Wrapped around the shocks are titanium springs produced by Camco. The remainder of the machine is fitted with pieces that are readily available.

It's surprising the number of parts we did not touch and the amount of additional weight that could have been shaved off. Bosses on the fork sliders were left as is because we may use them to mount a sprung front fender. Replacing 72 brass spoke nipples with 72 aluminum spoke nipples would save us over a pound. Both wheels with their heavy steel spacers and the speedo drive unit could have been changed for aluminum. But, at this point, we are within our projected weight and we didn't have to do anything way out-of-sight.

We had thought about machining the fork legs oval to 46 by 48-mm dimensions and fitting tubeless tires—we still might. Aluminum handlebars may also be fitted somewhere in the near future but we feel we've achieved our objective without digging too deep.

The following is a list of suppliers:

**Frame and fuel tank—Trackmaster, 18548 Parthenia St., Northridge, Calif. 91324.**

**Clutch and brake lever—Unifilter, 1350 W. Collins Ave., Orange, Calif. 92667.**

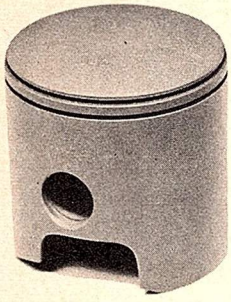
**Handlebars—Torque Engineering, 19755 Bahama St., Northridge, Calif. 91324.**

**Titanium shock springs—Camco, 5810 S. Normandie, Los Angeles, Calif. 90044.**

**Spocket and footrests—Circle Industries, 1881 Merced St., So. El Monte, California.**

**Part 3 will feature the Yoshimura treatment to the XL-250 engine, over 30 usable horsepower . . . and the complete Honda XL-250 MX racer.**


# SUPER PISTONS



We impregnate Hi-Performance Pistons with Teflon.© The type of Teflon© we use was developed for the Aerospace Program and is as hard as tool steel (58 on the Rockwell C Scale). It is impregnated into the piston and can't crack, chip, peel or shake loose as it actually becomes part of the piston. These Teflon© Super Pistons have 90% less friction and will give your engine 400 extra RPM'S, 1-3 extra H.P. per cylinder and reduce the running temperature by 10°. Piston and cylinder bore life is increased 2-3 times. Chance of seizure is greatly reduced. The Teflon© is good for 900° and will last indefinitely due to the extreme hardness and low coefficent of friction. These pistons are for street or racing use and come in std. +020, +040, +060 & +080 oversize. Rings and clips are included.

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| NORTON 750 | 54.95 a set | 175 | 29.95 ea. | 185 | 28.95 ea. | 120 CT, 2R | 21.95 ea. | 125 AT-1 or 2 | 26.95 ea. |
| XLCH | 54.95 a set | 250 | 31.95 ea. | TS-250R | 21.95 ea. | 125 E | 26.95 ea. | 175 CT-1 or 2 | 29.95 ea. |
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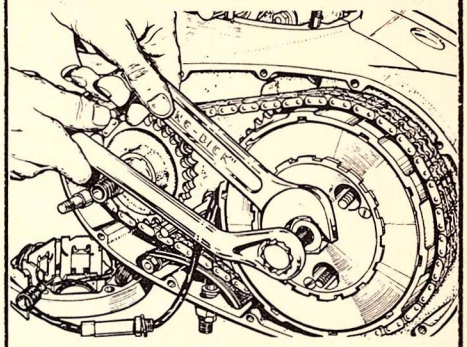
# MODERN CYCLE PHOTO CONTEST

The winning entry in this month's Action Photo Contest was submitted by Dave Hamby, of Godfrey, Illinois. The photo shows Dave Cooper "checking it out" at a trials meet which was held earlier this year in Fosterburg, Illinois. For submitting the winning entry in this month's Action Photo Contest, Dave Hamby receives a check for $5.00 and a free one-year subscription to *Modern Cycle* Magazine.


# KNOW YOUR BIKE



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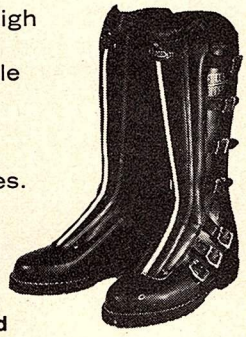

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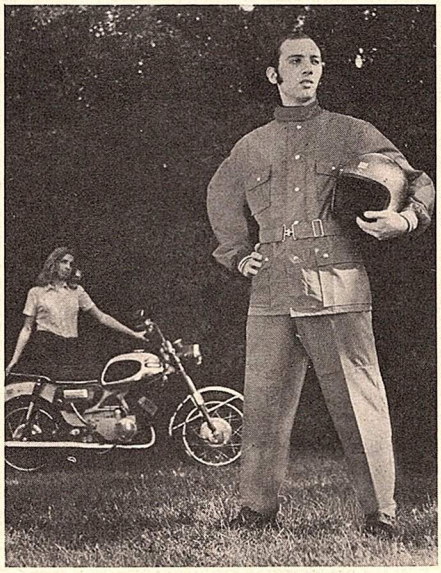

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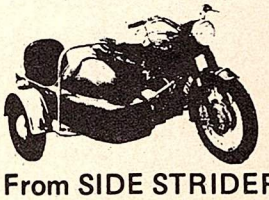

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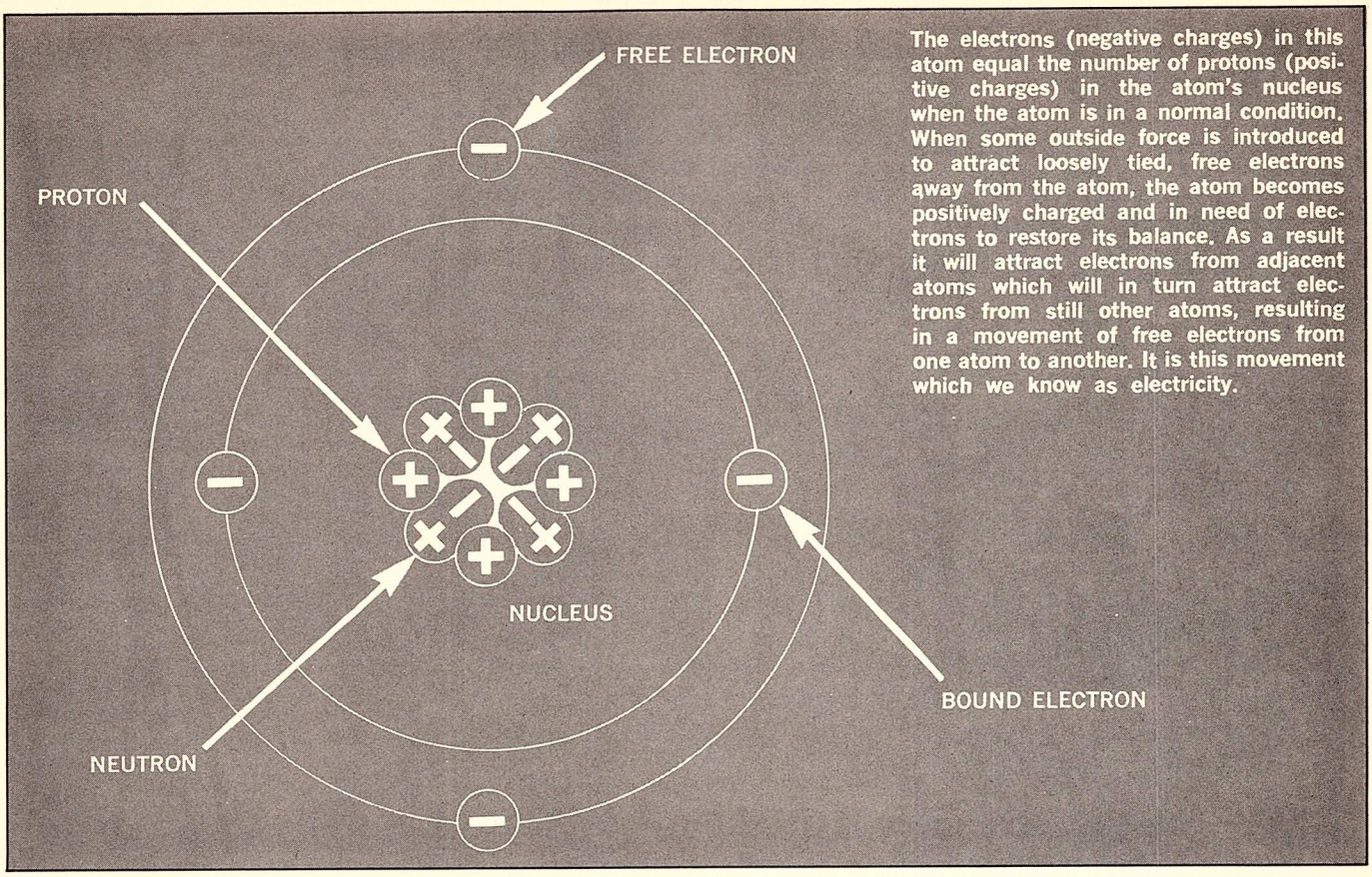



The electrons (negative charges) in this atom equal the number of protons (positive charges) in the atom's nucleus when the atom is in a normal condition. When some outside force is introduced to attract loosely tied, free electrons away from the atom, the atom becomes positively charged and in need of electrons to restore its balance. As a result it will attract electrons from adjacent atoms which will in turn attract electrons from still other atoms, resulting in a movement of free electrons from one atom to another. It is this movement which we know as electricity.

# GOLLYGEE, MR. SCIENCE!

## A Quick Lesson in the Workings of Electricity and Electrical components.

Perhaps no components on a motorcycle are as little understood as those in the electrical system. The mysterious power that gives life to equally mysterious devices with names like generator, and alternator and rectifier is a subject that isn't an integral part of that body of information referred to as common knowledge. More's the pity, because electricity isn't really all that mysterious. And a better understanding of how electrical components work will lighten your maintenance load and often result in a dollar savings.

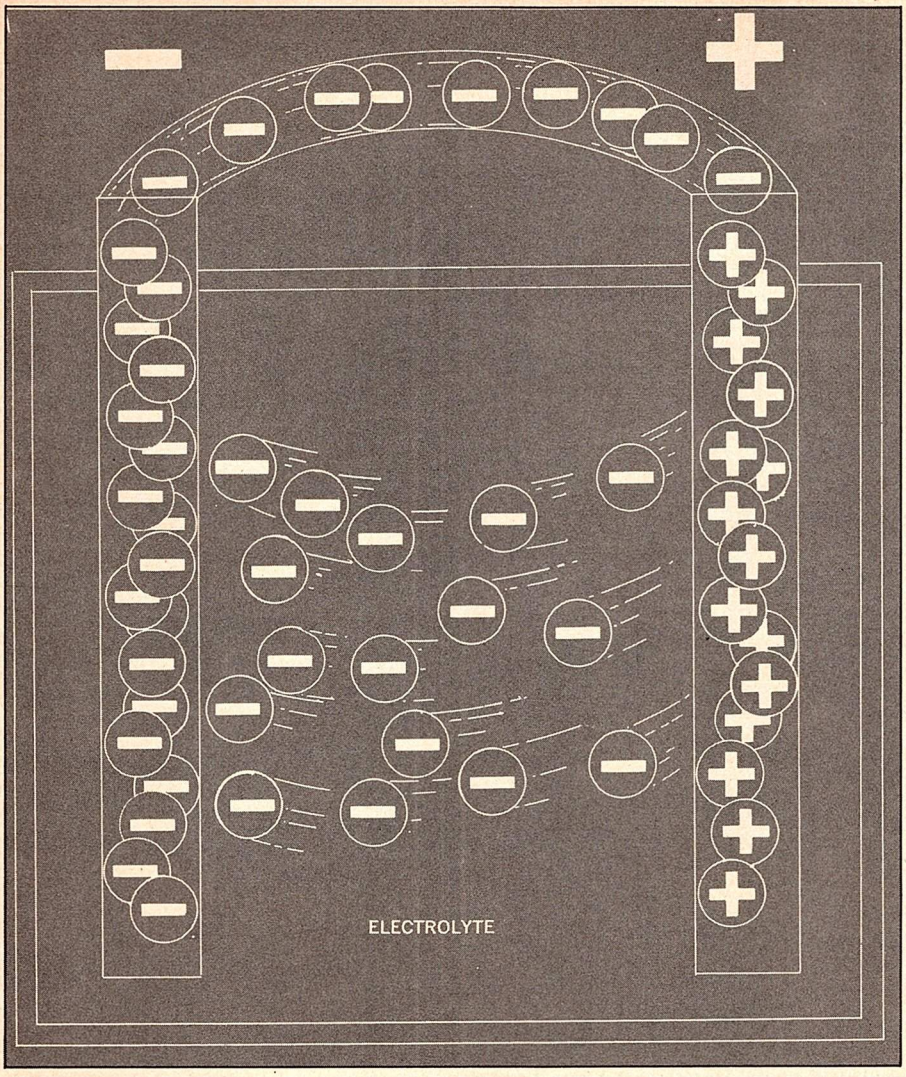
Electricity, like all energy and matter has substance—at least atomically. Like everyhting with which we're familiar electricity is made up of atoms. Atoms, in turn, are made up of charged particles called protons and electrons, and neutral particles called neutrons. The best information regarding the appearance of an atom —which by the way, no one has seen—is that it has postively charged protons, accompanied by neutrons, at its nucleus, with negatively charged electrons (one for each proton) swarming around like so many planets about a sun.

Because unlike charges attract, the atom maintains a semblence of balance, with the positive protons attracting the negative electrons. As might be expected the electrons that are farthest away from the nucleus—called free electrons—are not as srtongly attracted to the protons as electrons that are closer to the nucleus. As a result, the free electrons can be easily attracted away from the atom of which they are a part. The atom is a very orderly structure; it doesn't like losing its electrons, not even the free ones in the outer orbits. So, it robs adjacent atoms of some of their free electrons to replace those charges it has lost. Predictably the neighboring atoms are no happier about their losses, so they in turn pirate free electrons from around them, and on it goes with a lot of losing and gaining of free electrons by one atom and then another. It's this movement of free electrons, from one atom to another, that we know as electricity.

Under normal conditions this movement of free electrons takes place on such a small scale as to be of little consequence. To trigger the movement of free electrons to produce electricity some form of outside energy must be employed. There are six principal sources of energy tha can be used to produce electricity; friction, pressure, heat, light, chemical action and magnetism.

Of the six methods only two—chemical action and magnetism—are of real interest in the discussion of motorcycle electrical components and systems.

Chemical action is one of the more common and better methods of producing electricity. A storage battery uses chemical action, in the form of a reaction between lead and acid, to produce electricity. A modern battery comprises two types of lead alloy plates. Positively charged plates of brown lead peroxide, and negatively charged plates containing grey sponge lead. The plates are insulat-




**When fully charged the battery's positive plates will have a shortage of electrons, and the negative plates will have an abundance of them. In addition, the electrolyte is chemically very active at this point, containing 35 to 38 percent acid. In this state the electrolyte is capable of supporting the chemical action required to transfer electrons through a conductor to the positive terminal and from the positive plates, through the electrolyte to the negative plates. The electron movement will continue, and electricity will be produced until the electrolyte becomes diluted and loses enough acid to the plates where it can no longer support the chemical reaction.**

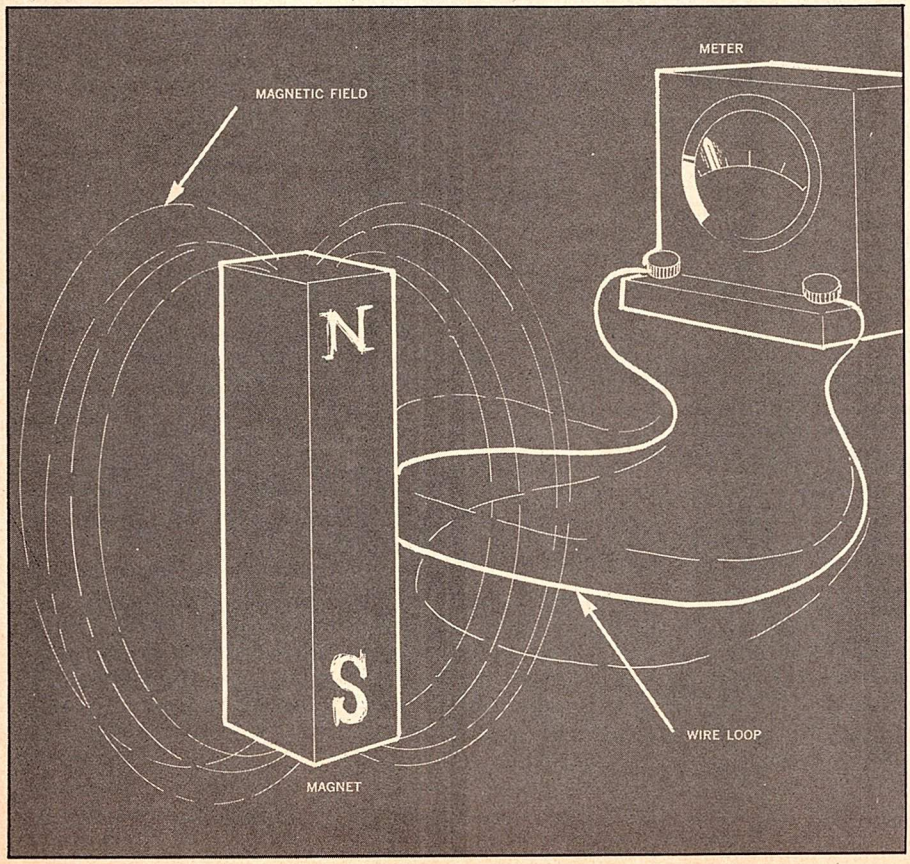
ed from each other and are immersed in an acid solution—an electrolyte.

When a battery is fully charged it might be considered to be in a highly unstable state; the negative plates have a substantial surplus of electrons while the positive plates are experiencing a shortage. When a circuit is completed between the plates, providing a path for the electrons, they will rush from the negative to the positive in an attempt to restore the atomic balance.

At the same time this is taking place a similar transference of electrons is taking place between the electrolyte and the plates. Through chemical action the electrolyte pushes electrons onto the negative plates and takes them away from the positive plates. The electrolyte will continue this action until it has lost too much of its acid to the negative plates to continue to support the reaction. At this point the battery is dead, or discharged.

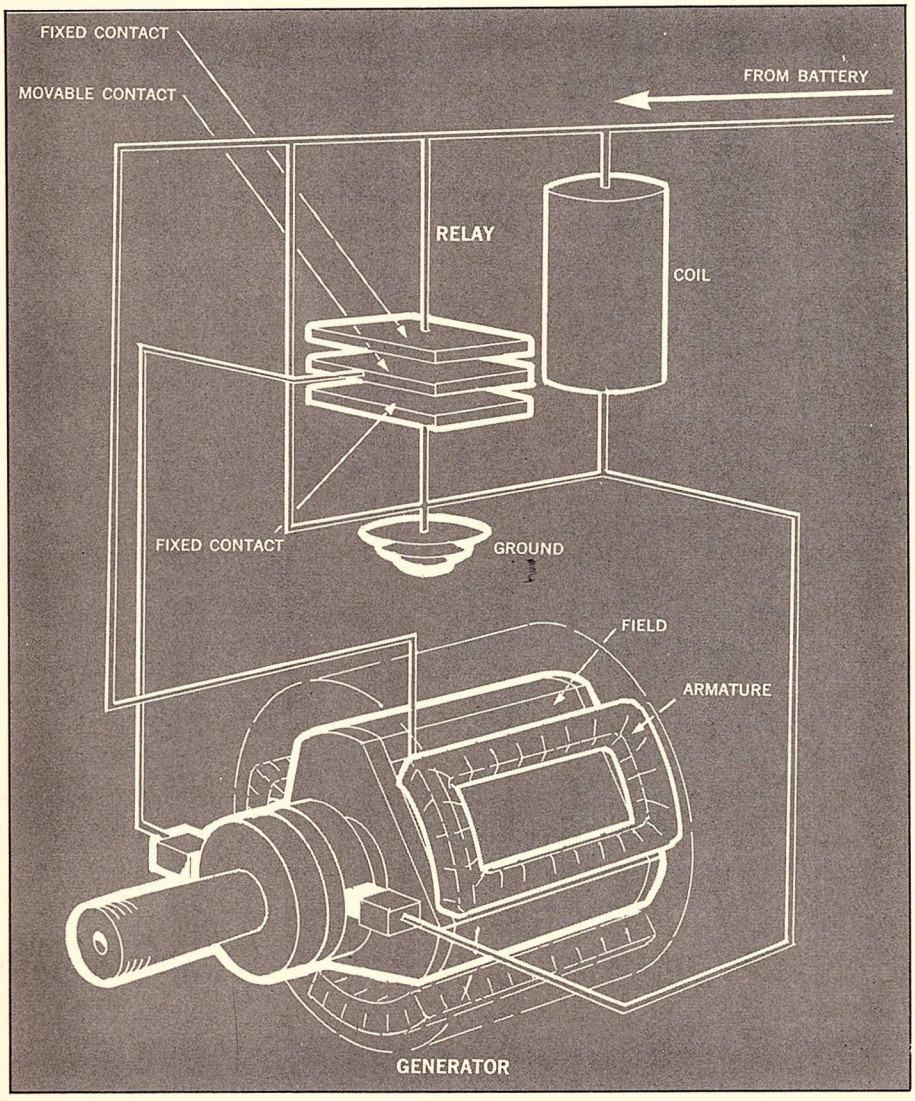
To restore the battery's strength is a simple matter; by reversing the flow of electrons—from positive back to negative—acid and electrons are returned to solution in the electrolyte, the negative plates once again have more electrons than they know what to do with, and the positive plates again find themselves with a deficit of negative charges.

The most common means for producing electricity is magnetism. And the most common device for this chore is the generator. Magnetism is a force which exists naturally in an ore called magnetite, and can be produced artificially in some metals, either through contact with a natural




**When the wire loop, which is connected to a meter, is passed through the magnet's force field the wire "feels" the field as an electric impulse. When the wire and magnet remain stationary no current is produced. In a practical application of a magnetic electricity producer—a generator—many loops of wire are passed continuously by a magnetic field to provide a sustained, useful current.**

# A Quick Lesson in the Workings of Electricity and Electrical components.




**The field (magnet) in this generator is an electromagnetic type. When the engine is first started current is drawn from the battery to energize the field and magnetize it. As the magnetized field rotates inside the armature coils it induces voltage in the coils. The resulting current is routed back to the relay. When the voltage level to the relay exceeds that from the battery the relay coil is excited and breaks the contact and moves the moveable contact midway between the fixed contacts. The field is now supplied directly by the generator output. When the output voltage exceeds the capacity and requirements of the system the increased voltage to the coil causes the coil to draw the moveable contact all the way to the ground terminal. As a result the field strength decreases, resulting in a decrease in generator output. When the voltage level returns to a safe level the coil relaxes enough to permit the moveable contact to return to the midway position.**

magnet or through creation of an electromagnetic field.

A magnet's force forms a pattern, called a flux pattern, between two poles—north and south. By itself the magnet produces no electricity. However, a loop of wire passed through the magnet's force field will "feel" the force as an electric impulse. If many loops of wire are combined, as they are in the armature of a generator, and the movement of the loops through the magnetic field—or the movement of the field through the loops—is continuous the result is a steady flow of electrical impulses that provide a uniform, useable flow of electrical current.

In addition to its role as a power producer in generators and magnetoes magnetism also performs an essential service in control components. Just as the movement of a wire through a magnetic field produces electric current, so too will the opposite occur; electric current passed through a coil of wire will create a magnetic field within the coil. The strength of the magnetic field is a function of the amount of current passing through the coil; the more current, the greater the strength of the magnetic field. For this reason an electromagnet is an ideal device for operating current control regulators.

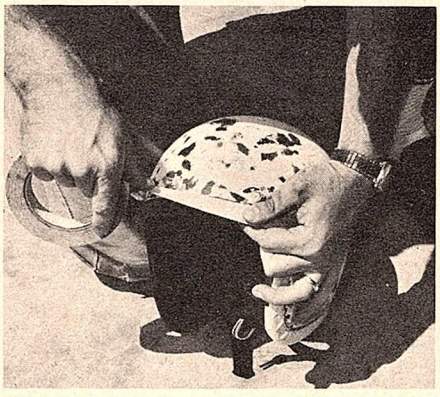
A multi-circuit magnetic relay can be used to energize a generator field with stored battery current during engine starting, conduct generated current to the battery and system, or conduct the generated current to ground when the generator's voltage level exceeds the requirements and capacity of the system.

Electromagnetism finds still other work, in ignition systems, where it is used to step up, or increase, voltage in ignition coils. As current is passed through the primary side of the ignition coil the resulting magnetic field radiates out from the conductor, inducing voltage in each coil it intersects. Because the field induces voltage in each coil it cuts across it is a simple matter indeed to step up a given voltage in one coil by pairing it with another coil containing more turns. That is to say, if the primary voltage to the ignition coil were 200 volts and the required ignition spark voltage is 20,000 volts the ratio of turns between the primary and secondary windings of the ignition coil must be 1:100. Or, if there were 20 turns in the primary coil the secondary coil must have 2000 turns.

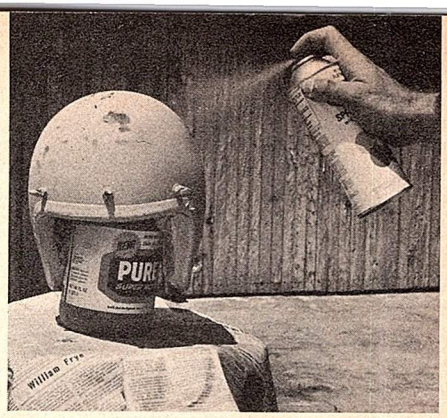
The combination of chemical action and magnetism works well together to fulfill a motorcycle's needs for electricity to light lights, honk horns and ignite fuel mixtures. Electricity's nature isn't really so mysterious after all; it's simply the movement of free electrons, from one atom to the next, along a continuous path, triggered and sustained by one of six forces — friction, pressure, heat, light, chemical action and magnetism. ●

# CUSTOM HELMETS ARE EASY

by Cliff Fowler



*When sanding is complete, and the helmet has a smooth, even surface, the next task is to carefully mask off items that are not to be painted.*



*With the masking completed, apply several light coats of primer, allowing several minutes between coats. After primer is dry, sand with fine grit paper to prepare for first color coat.*

**Custom paint from a spray can? If you can follow directions, you can have a first class job.**

Want a custom paint job on your helmet, but don't want to spend a lot of money to have the job done? With a little patience, time, and a small cash outlay you can do a custom paint job yourself. The secret is as near as that shelf full of spray paint cans at your nearest motorcycle or auto supply store. If you think that nothing good has ever come out of a spray can, then sit back and pay attention, you may be surprised at the results.

There are a few tricks to using spray cans, but once you have mastered them you can have first class results. Before you rush out and buy an armful of supplies, the first step is to plan your job. Decide what kind of paint job you want to do. Determine the type of paint you want to use, and any special effects or designs you want to get. Special effects fall into several categories that include the type of paint you use and the patterns or designs you create with those paints. Before we go further, let's look at some of the choices you have.

## SPECIAL EFFECTS

Although many riders still prefer a simple helmet, painted with a single color, flashier helmets combining various patterns with bright colors and special paints, are becoming extremely popular. Even when working with spray cans, you have a good choice to work with. Most of the popular paints from "metal flake" to "candy apple," in a wide range of colors, are available. As a result of this there is a great deal of room for imagination. For example, the "candy" colors usually involve a two-step process with a gold or silver base coat followed by a transparent color coat. Designs can be masked off between these two coats to achieve interesting results (this is the method we used in the accompanying photos). By using a metal flake paint for the base coat you can also come up with good results. Whether you decide to experiment or stay with a simple paint job, however, it is important that you make a test patch before proceeding with spray cans.

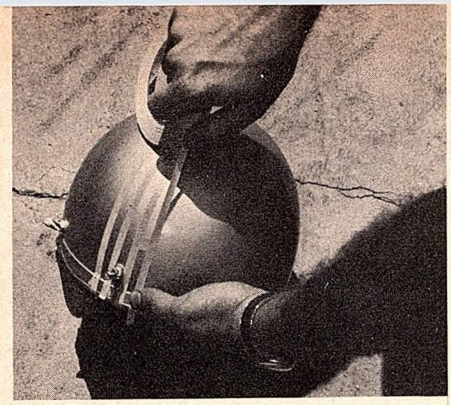
## THE TEST PATCH

In simple terms, the test patch consists of applying the exact procedures and paint to some test object (an old coffee can or similar object will do fine). The test patch doesn't need to be more than a few inches in size, but is important for several reasons.

First, it should indicate how your final job will look. You can usually get a better idea about colors, contrasts, and patters. Your test will allow you to check the required drying time between coats, as well as the number of coats that will be required to get what you're after. Each different spray can may spray with a slightly different pattern and the test will let you learn the differences. Possibly the most important factor, however, is the matter of compatability between different paints. Occasionally one brand of paint will react with another, causing the paint to wrinkle or lift. This is especially true in the case of primer. Inspect your test patch carefully after each step, to check for any reaction that may take place. Once the test patch is complete, and you're satisfied with the results, you're ready to move on to the real thing.

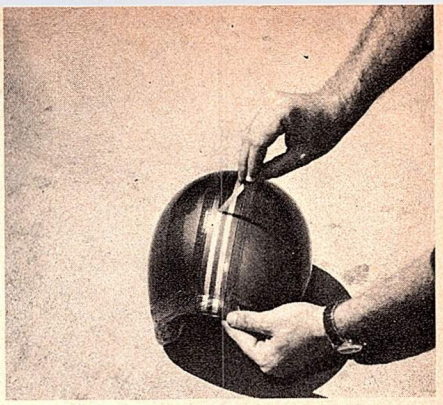
## MATERIALS

The materials that you will need for your job will depend partly upon the type of job you decide to do and on the condition of the helmet to begin with. The helmet that we used to illustrate the article was in as poor a condition as



*For this helmet, we applied several coats of silver base lacquer and then used masking tape to lay out pattern. The tape used here is 1/4-inch wide.*

*Next step was to apply transparent green lacquer to the surface of the helmet that was not masked off. Always follow the directions on each can of paint for the best results.*



*Removing the tape reveals the contrast between the silver and green areas. Tape should be removed before the paint is completely dry so that edges blend better.*

you will find, as far as a paint job is concerned. With nicks, scratches, and several layers of old paint, few jobs will need more preparation or materials. We decided to do the helmet in a "candy apple" green lacquer over a silver base. Our list of materials included: one can of primer, one can of silver base lacquer, one can of transparent green lacquer, one can of clear lacquer (we'll tell you about this later), four sheets of wet-or-dry type sandpaper, and masking tape. We have found, that for this type of work, the best results are obtained from lacquer paints. The lacquers usually go on better, dry faster, and are easier to control than spray can paints of other kinds.

## WORKING WITH SPRAY CANS

One of the most important things is to follow the directions that are printed on each can. Shake the can well before starting to spray and repeat the shaking occasionally while you're working. Always keep the can the correct distance from the work (usually 8-10 inches), when spraying. As we mentioned earlier, always test the patter of spray from each can before you begin the job. Do your painting in a reasonably clean area to avoid the chance of dust getting in the paint. Finally, avoid spraying outside if there is even the slightest breeze blowing. If you use care and follow directions, you can get excellent results from spray cans.

## SURFACE PREPARATION

One of the most important parts of any paint job is the initial preparation. If the surface of your helmet is in good shape, all it will need is a light sanding with a fine grit (280 or 400), wet-or-dry paper. For best results, use the paper with a sanding block. Any nicks or surface blemishes in the helmet should be feather-edged with a medium grit (around 220) paper. Use plenty of water on the area that is being sanded. The water keeps the paper from accumulating the old paint and makes a faster job, with better results. After the entire surface of the helmet has been sanded, wash the surface thoroughly and allow it to dry completely before moving to the next step.

With the surface sanded and cleaned, the next step is that of masking off the parts of the helmet that are not intended to be painted. These parts will include the rubber molding around the edge, the visor snaps, and the helmet interior. Use standard ¾-inch masking tape. Be sure that the edge of the tape is not covering any of the area to be painted. Use tape and paper to protect the inside of the helmet from overspray.

## THE PRIMER COAT

Apply the primer in several light coats, allowing a few seconds between coats for the paint to set up. In most cases, three or four light coats should do the trick. When the primer provides a smooth, even surface over the entire helmet, you can stop and let the primer dry thoroughly. Don't attempt to hold the helmet in your hand when you are spraying. It is best to prop the helmet up on something that will put it at a convenient working level and allow you good access to all sides. A tall stool, a crate, or an overturned rubbish barrel is good for this purpose. This leaves you free to concentrate on the job and results in a better finish. After the primer is dry, lightly sand the entire surface with a fine grit paper, before applying the color coats.

## APPLYING THE COLOR

If you have done everything correctly up to this point, the rest of the job should be easy. The exact steps you take from here on will depend partly on the type of job you plan to do. Any time the final job will result in a design with two or more colors, the main color should be applied first. The pattern is then laid out and masked off. If there are sharp bends in the pattern, use ¼-inch masking tape for the initial layout, and fill in with the wider tape.

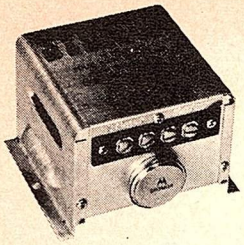
On the helmet illustrated here, we sprayed a base coat of silver lacquer. A simple pattern was then masked off. Following this with several coats of transparent green lacquer resulted in a green helmet with a silver pattern, after the masking was removed. Take special care when applying the color coats, especially when working with the transparent lacquers, as any flows or uneven paint will be difficult to conceal. When you have reached this point your helmet will start to have a finished appearance, but don't get anxious. The quality of your job will be greatly improved by a few finishing touches.

## THE FINISHING TOUCHES

The steps you take after the last coat of color has been applied can make a big difference in the final appearance of your paint job. The first step is to remove any tape that was used to mask off a pattern on the helmet. For the best results, this tape should be removed as soon as the paint has had a chance to set up but not completely dry. This allows the lines to blend better. Removing the tape before the paint has dried, however, requires extra care.

Earlier, when we discussed materials, we mentioned a can of clear lacquer; now we will explain its purpose. After all tape is removed from the painted surfaces, allow the helmet to dry for a few additional minutes, then apply one or two coats of clear lacquer over the entire painted surface of the helmet. The clear lacquer will help blend the edges of the pattern, it will dissolve overspray, and provide a protective coating for the paint job. After the clear lacquer has been applied, wait about 15 minutes and carefully remove the masking tape from the helmet trim.

Although it can be handled within a few minutes, the helmet should be placed in a safe place for several days, so that the paint has a chance to dry completely. Do not attempt to apply wax to the surface for at least two weeks. After that time, use a mild rubbing compound and lightly rub out the entire surface of the helmet. After the paint has been rubbed out, apply a coat of good wax. If you have worked carefully, and followed instructions, you will have a durable paint job that you can be proud of. ○



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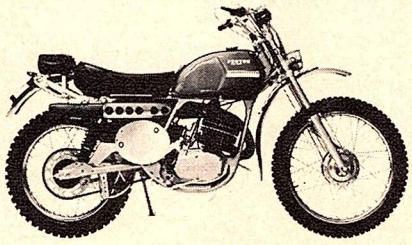

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# Converting the H-D Baja

(Text continued from page 69)

that comes very close to the ideal standard.

With the exception of the relocation of the footrests, the chassis was left in stock form. No skid plate has been fitted to the machine, and so far, Krizman has found no need for one. The stock Baja offers close to 12 inches of ground clearance which is more than sufficient for getting over most obstacles. As Jack's expertise at trials riding grows he plans to eventually mount a bash plate. The stock Baja wheels were retained, but they were reshod with more suitable rubber. At the rear of the bike is a Dunlop Trials Universal tire which measures 4.00x18, and at the front is a trials-type Metzler with a 2.50x21 configuration. Since extremely low pressures are run in both tires rim locks were fitted to prevent the rubber from rotating on the rims.

In pure trials form the Baja turns out to be a pretty acceptable mount. Steering is very precise and full lock turns prove to be no problem whatsoever. The stock, wide ratio transmission is not quite right for trials work. However, Krizman plans to change this situation by mounting an even larger rear sprocket. Even with the standard gearing the front end can be easily lofted to clear moderate-sized obstacles. With the larger rear sprocket in place the bike should be able to climb trees.

In the realm of rider comfort the bike is badly lacking; a fact that applies to almost all true trials bikes. For the Baja owner who has considered trying trials the Krizman conversion is a good way to go. Once the conversion has been accomplished it shouldn't take more than an hour or two to return the bike to its stock, trail riding configuration. It's much like having two distinctly different bikes in one machine. ●

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Linda Robertson of Amarillo, Texas likes to get aboard this Kawasaki Mach III with Brad Musick (the photographer), for leisurely touring in nearby Palo Duro Canyon. Linda, in demand around Amarillo as a fashion and photographer's model, also enjoys extensive travel as an employee of a major airline. For sending in the winning photograph Brad Musick receives a check for $5.00 and a free one-year subscription to *Modern Cycle* Magazine.


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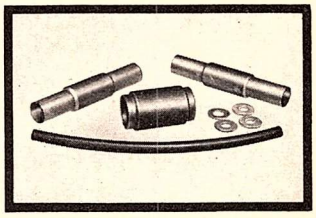

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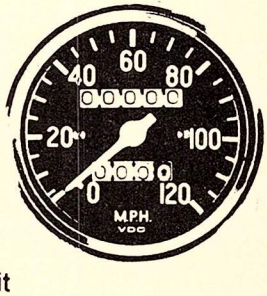


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# RACING GAME

Text continued from page 7

general manager. AJS promises a new engine for 1973, and whilst the existing Stormer engine is stilll competitive is somewhat dated being merely an updated or renamed version of the Villiers Starmaker. Now that production of the Norton Commando and Interstate variants are full steam ahead, the factory promises more attention and effort to little brother AJS.

With four rounds yet to go in the Trials Championship—Scottish Six Days winner has already retained his European trials championship after winning the Polish and West German rounds—and this before the end of May.

June is the month of the Isle of Man T.T. week when this holiday paradise is given over to the festival of powered two-wheel (& sidecar) speed. Starting on Sunday, there is a moto cross . . . Monday the 350cc TT followed by the 500cc Sidecar races . . . Tuesday the Castrol moto cross . . . Wednesday the 250cc TT followed by Formula 750cc TT . . . Thursday the motorcycle gymkhana and evening scramble . . . Friday the 125cc TT followed by the 500 TT, and the grand finale with favorites Agostini and new teammate Phil Read on MVs. Their only serious opposition could be one of the ultra-fast Yamahas or the lone Aermacchi of Renzo Pasolini. The Sidecar TT looks on paper as a BMW 1-2-3, but Chris Vincent on the Munch URS 4 could upset this reckoning.

During this speed week every make club seems to hold its annual gathering of the clans; Vincent owners, Ariel owners, TT Supporters Club, BMW Club, Honda owners, Norton owners, Triumph, Vintage, London Douglas, Velocette . . . all contribute to make this a week of motorcycle only activity. The total entries for all races is 620 with many riders in three capacity classes. The 37-mile circuit has been lapped by 48 riders at over the 100 mph magic figure with Mike Hailwood's record on a 500cc Honda at 108.77 made in 1967 still standing, whilst in the smallest 125cc class the late Bill Ivy in 1968 on a 125cc Yamaha hit a lap at a fantastic 100.32, and in the same year on a 250cc Yamaha 105.51 in the 250cc TT. In the Sidecar classes the record lap is held by a 500 BMW at 94.32, whilst the 750cc Sidecar is slower at 93.44. •


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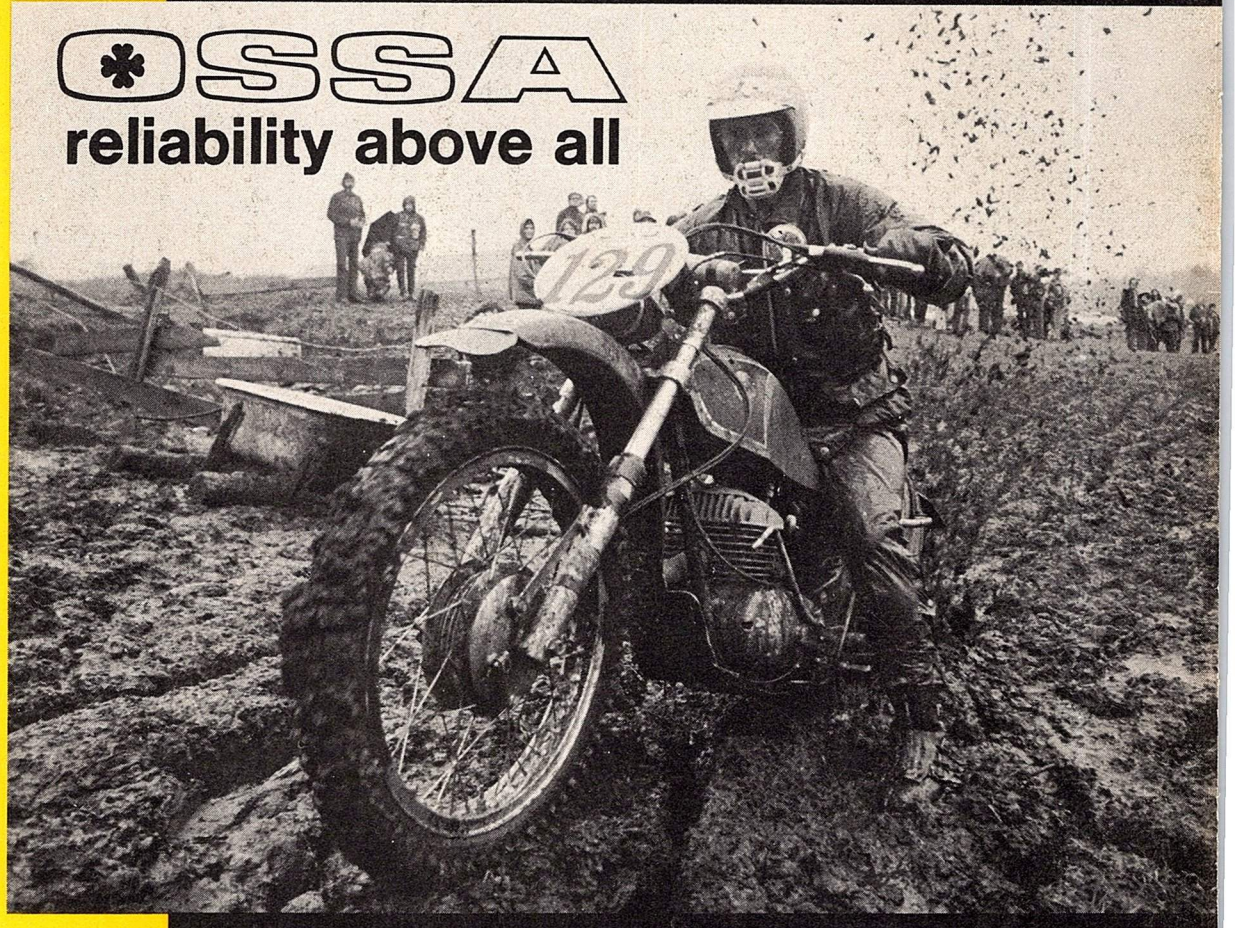


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